# THE HILL COUNTRY OF NORTHERN NEW ENGLAND

*Its Social and Economic History in the Nineteenth and Twentieth Centuries*

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*To Bea*

WHOSE MERCILESS PEN HAS STRUCK OUT

SOME OF MY MOST NOBLE THOUGHTS

## EDITORS' FOREWORD

A NATIVE Californian on his first visit to the East casually remarked that if the United States had been settled from the Pacific coast New England would not yet have been discovered. Be that as it may, this glaciated, rock-strewn, semi-mountainous region was early settled by a hardy race of Englishmen which managed to survive by recourse to farming and fishing. With the passing of years and the growth in population, additional areas of this rough, forest-covered land, which Timothy Dwight thought was better fitted for grazing than for agriculture, were deforested and fenced into innumerable small self-sufficient farms.

On these farms, blanketed deep in snow for three, four, and even five months of the year, the New Englander and his family managed by dint of hard work and Calvinist thrift to secure a livelihood. On the more fertile fields enough grain, vegetables, and forage crops were raised to feed both humans and livestock. Everywhere in northern New England self-sufficiency was to be on a very considerable scale. Each farm produced its own raw materials and fabricated its own finished products. Usually the long winters were devoted to lumbering or "getting up" the annual supply of firewood or to handicraft pursuits. Little cash capital was available. Money needed for taxes and for the purchase of necessities came from the sale of surplus wool, livestock, pork, butter, cheese, maple sugar, and other commodities. Roads were poor, and travel costly and hazardous. The farmer saw little or nothing of the outer world, and, as a consequence, his life tended to be routine and provincial. Not only was he compelled to struggle with backward seasons and numberless enemies such as wolves, grubs, and

insect pests, but he was constantly harassed either by low prices for what he had to sell, or by irksome laws of a government which was not always of his making, or by the teachings of a severe theology in which the devil and eternal damnation were ever stressed.

But this isolated self-sufficiency of northern New England was not destined to remain unchanged. Long before the middle of the nineteenth century, the region was beginning to experience the impact of certain basic movements which were to alter its life and to compel it to wrestle with new problems. Foremost among these was the opening up of cheap, fertile lands in northern and western New York and in the valley of the Mississippi. Annually thousands of New Englanders were drawn from their stony countryside by the magnet-like attraction of these virgin territories. Their departure spelled for their forsaken homeland not only serious loss in numbers, leadership, and productive enterprise, but also destructive competition. As canal and railroad transportation improved, the West poured into New England a veritable flood of agricultural staples at prices ruinous to the hill-country farmers.

Simultaneously with the lure of the West came that of the city. Throughout the greater part of southern New England the spread of industrialism was heralded, during the second third of the century, by the increasing number of busy factory towns. The tales of good jobs, quick money, and higher standards of living, which gradually filtered from these growing urban communities into the hill country caused unrest and migration away from the farm. Indeed, by 1850 less than half of the gainfully employed inhabitants of Maine, Vermont, and New Hampshire were farmers. Farm journals found ever recurring cause to deplore this shift in population and cast about for ways to stem the tide cityward.

Even those New England farmers who chose to remain where they had been born and reared were in many cases com-

pelled by force of circumstances to alter their economy. With the growth of factory towns and the spread of the railway net, subsistence farming tended to give way to commercial farming. Instead of manufacturing everything possible in the home the farmer now purchased factory-made boots and shoes, clothing, furniture, and tools. To procure the cash with which to pay for these purchases, he was forced to produce greater quantities of marketable commodities. Moreover, western competition compelled him to specialize in those products which he could most profitably produce.

Soon after the close of the Civil War it became increasingly evident that the New England farmer, despite his attempts in the direction of commercial agriculture, was waging a losing fight for existence. Widespread desertion of farms, and a pronounced decline in rural population, marked the closing decades of the century. Many persons pessimistically expressed the opinion that New England, particularly the northern part, had ceased for all time to be of agricultural importance.

The first three decades of the twentieth century, however, were to demonstrate that this opinion was not entirely correct. Northern New England has ceased to be a meat-wool-and-grain region; instead it has become a dairy-fruit-potato-poultry-and-garden-truck territory. Though the racial character of the rural population of the region has changed somewhat, the rural New Englander has not retrogressed. On the contrary, modern conveniences such as the daily mail delivery, improved roads, the automobile, the telephone, the radio, the grange, and many governmental educational services of which the farmer has availed himself have tended to make him technically more efficient and less provincial in outlook than the New England farmer of a century ago. Finally, the fact that New England has become one of the leading playgrounds and recreational centers of America has added greatly to the farmer's income and enjoyment.

In brief, northern New England has been repeatedly compelled to readjust itself to changing conditions. It is with the story of these readjustments and the forces responsible for them that Dr. Wilson has concerned himself in this book. A native of Vermont and a close student of New England life, he is unusually qualified to discuss the subject to which he has addressed himself. This volume is not only an admirable study in social and economic history, but a unique and valuable contribution to the history of American agriculture as well.

H. J. C.
R. G. T.

Columbia University
in the City of New York
September 3, 1936

# PREFACE

THE writer began collecting material for this volume in 1928, when, as a student in the seminar of Professor A. M. Schlesinger in the Harvard Graduate School of Arts and Sciences, he made a report on conditions in rural New England covering the years from 1875 to 1900. A native of a small town in Vermont, he has always been interested in the problems of that area. In the spring of 1929, he received a grant from the American Geographical Society of New York, which was making a series of studies in New England regions, to investigate the situation in Windsor, Vermont, and the hinterland tributary to it. The results of the work appeared in the July, 1931, issue of the *Geographical Review*, in an article called "The Roads of Windsor," with maps and illustrations. Some of the material gathered for this monograph has been used in this study.

The academic year of 1929-30 was spent in collecting additional data in Widener Library, Harvard University; the Baker Library of the Harvard Business School; and the Boston Public Library. During the following two years more material was found in the Billings Library of the University of Vermont; the Vermont State Library at Montpelier; the Library of the Vermont Historical Society in the same city; the Baker Library at Dartmouth College; the Library of the New Hampshire Historical Society and the New Hampshire State Library, both at Concord; the Library of Columbia University; and the New York City Public Library. To the staffs of these several institutions the author is deeply obligated, for without their coöperation this volume would have been impossible.

The author also wishes to express his gratitude to those who have otherwise assisted him in the preparation of this

book, particularly Professors Harry J. Carman and Rexford G. Tugwell, the editors of the series in which this work appears. More especially is he indebted to the helpful and constructive criticism of Professor Arthur Schlesinger of Harvard University under whose guidance this volume was written. Dean Joseph L. Hills, of the College of Agriculture of the University of Vermont; Major T. H. Thomas, of Cambridge, Massachusetts; and the late Henry Steele Wardner—of Windsor, Vermont, and New York City—have all made helpful suggestions. Dr. John K. Wright, of the American Geographical Society of New York, has given kindly advice, and through him, the editors of this series have been able to borrow the cuts of the *Geographical Review's* maps illustrating the writer's article on population trends in the hill country of northern New England, from 1790 to 1930. Permission to use material which appeared in articles by the writer in the *New England Quarterly* and in *Agricultural History* and to reproduce graphs, maps, and pictures from the *Journal of Forestry* and from publications of the U. S. Department of Commerce, the U. S. Department of Agriculture and the Vermont Department of Conservation and Development is gratefully acknowledged. The constant interest shown by the author's father, the late Guy Wilson, Town Clerk of Bethel, Vermont, for over a quarter of a century, helped in bringing this work to completion. Deeply appreciated is the aid given by Mr. George Baldwin of Glassboro, N.J., in re-typing the footnotes and checking for errors. Finally, it is quite impossible adequately to express my indebtedness to my wife, Beatrice Herberg Wilson, who has typed the manuscript through all its stages and who has labored with me through the onerous task of proofreading.

H. F. W.

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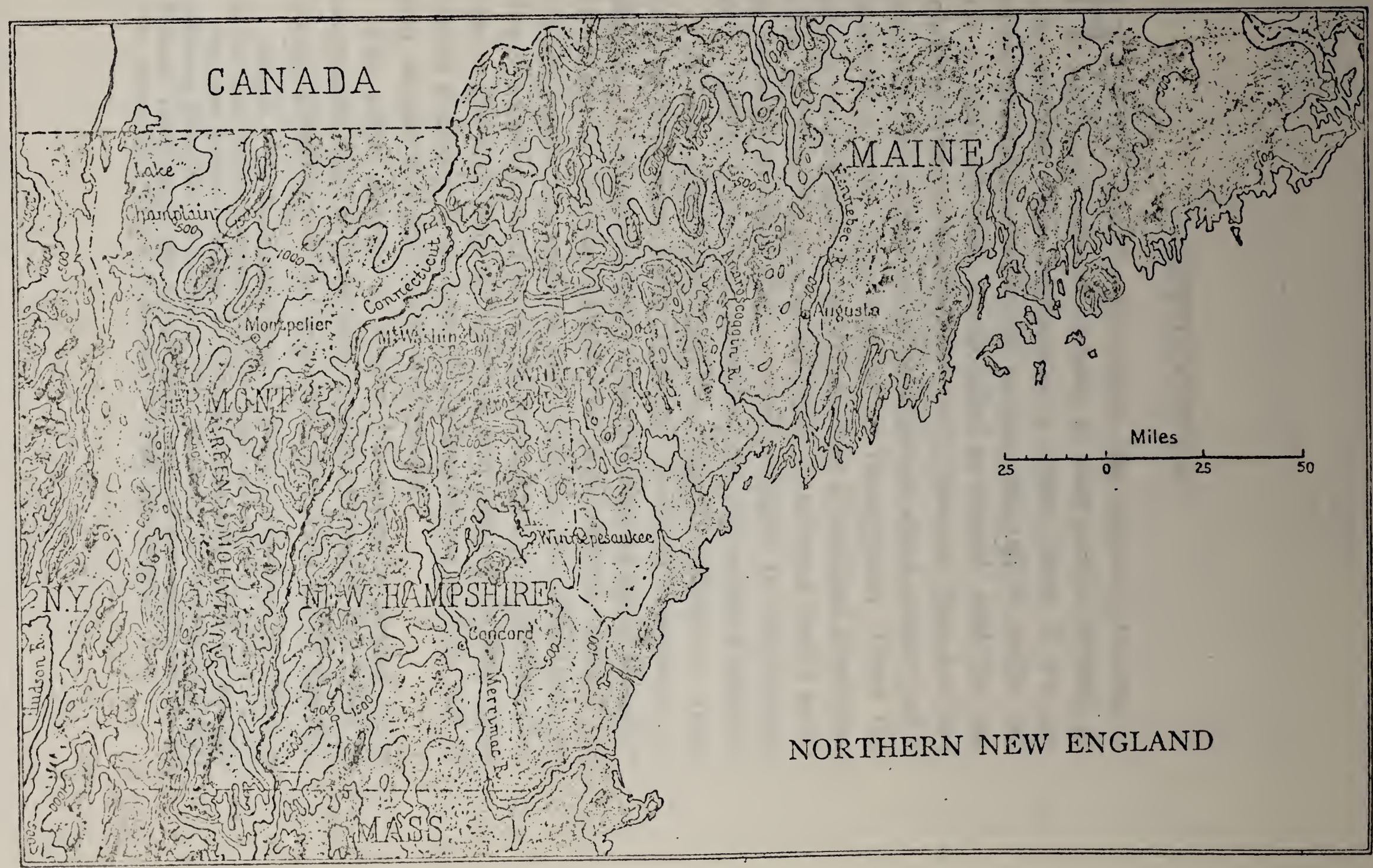



NORTHERN NEW ENGLAND

# INTRODUCTION

HISTORY, like all other studies, has frequently undergone significant changes in point of view and in methods of interpretation. Until comparatively recent times it was regarded as a legitimate form of propaganda, and the author felt free to omit any facts which failed to coincide with his preconceived theories. During the 1880's, however, there emerged in this country a small group of historians which endeavored to introduce a more exact method of investigation. These historians insisted that the past should be scrutinized dispassionately, and that the ideal of scientific detachment should never be lost sight of. Nevertheless, they continued to devote themselves mainly to political, constitutional, and military history.[1]

This new school was itself very shortly subject to transforming influences. From 1900 on, recurrent expressions of dissatisfaction[2] were aimed at the restricted range of the older historians. It was maintained that their attitude toward the subject matter was snobbish and exclusive, with little appreciation of economic motivation and no realization of the part that men in the mass play in history. It was asserted that the study should embrace all sections of the population, poor as well as rich, women and children as well as men.[3]

This newer concept of history has gradually gained wider acceptance, and as a consequence the historian has come to occupy himself more and more with the whole life of the peo-

[1] Schmidt, "The Economic History of American Agriculture as a Field for Study," pp. 39-44; Schlesinger, "History," pp. 211-16.

[2] In 1900, Edward Eggleston in his presidential address before the American Historical Association demanded a "New History"; in 1911, James Harvey Robinson reiterated the plea for a changed emphasis in a volume bearing that title.—Schlesinger, "History," p. 216.

[3] *Ibid.*, pp. 218-22.

ple. No longer does the political historian hold the center of the stage. One after another new phases of human activity have slipped under the lens of the discerning student of history. Instead of being content with surface currents and eddies of life, the social historian tries to get at the permanent and compelling forces—at the master tides, as it were.[4]

It is with this broader conception of history in mind that the present investigation into the life of the New England hill-country farmer and his family during the past sevenscore years has been undertaken. The story of those who fared forth from New England to the new lands of the West has been told frequently and well in prose and poetry. Our task is to tell of those who stayed at home.

About the New England farmer there has always clung an atmosphere of especial interest to almost everyone. As the *Nation* remarked in 1926, the American farmer of popular history, of romance, of poetry, of the cartoon even, has been the New England farmer. The rural snowstorms recounted by Emerson and Whittier obviously occurred in New England. It was the New England farmer who used to say "By heck," and the gaunt, bearded figure that still typifies the tiller of the soil is a caricature of the close-fisted Yankee of the hill country, and has little in common with agricultural regions farther west.[5] Hence farming in New England is invested with a peculiar sentiment, and there are few Americans who have not read with concern of her abandoned farms.

In a general way, New England represents from the point of view of population two widely different sections. The northern, which includes Maine, New Hampshire, and Vermont, is, except for a few urban districts in southern Maine and New Hampshire, a region of scanty population where farming em-

[4] Schmidt, "The Economic History of American Agriculture as a Field for Study," pp. 33-44; Schlesinger, "History," pp. 218-23, 228-30.

[5] Crawford, "The New England Farm Coming Back," p. 160.

ploys a considerable proportion of the people.[6] The southern, which embraces Rhode Island, Connecticut, and Massachusetts, is more densely populated than any other area of the same size in the United States.[7] It looks to manufacturing for its main support, and to the neighboring rural territory for much of its food supply, especially milk.

The particular region which the writer has singled out for study is the upland, interior area of New England, comprising most of the three northern states and especially Vermont and New Hampshire. Approximately one-half of New England exceeds one thousand feet in elevation. Its physical backbone is the mountainous portion which stretches from the Canadian border of Maine to the White Mountains in New Hampshire and the Green Mountains in Vermont, tapering down to the Berkshires in Massachusetts and the Litchfield County hills in Connecticut. The northern and western parts of this backbone are conspicuously rough and rocky, with outcropping ledges interspersed with numerous water courses and lakes. The ruggedness of its surface has been an important factor in the development of the area. Its rough topography has made possible water power, has influenced the routes of roads and railroads, and has limited the development of agriculture.

New England soils may be classified according to type, contour, and elevation, into three distinct groups. The first is found in the mountainous and hilly regions of the higher elevations, where there is generally a thin soil with such a prevalence of rock that tillage is not profitable under modern conditions. By the 1830's, much of this land had been cleared and was

[6] When the state capitol was being constructed at Montpelier, Vt., the committee in charge decided to crown the edifice with an image which would be symbolic of the state. Therefore, above the dome was put the statue of Ceres, Goddess of Agriculture.—Stone, "Vermont's Maple Opportunity," p. 49.

[7] Lefferts, "New England Farming: Its Present and Future," p. 190; verified, 1933, by the Frederic J. Haskin Information Bureau, Washington, D.C., in a letter to the writer.

given over to the raising of crops in small, irregular fields. The difficulty of working the soil in competition with the richer land of Western farms was one of the principal reasons, as we shall see later, for the abandonment of agriculture on much of this broken land and for its consequent reversion to forest. Most of it is better adapted to timber growing than to farming, but portions of it are utilized today for farm pasturage as a support to the dairy industry.[8]

A second variety of soil is to be found in the upland valleys interspersed among the hill regions. The story is told that Ethan Allen, looking at the rugged Green Mountains of Vermont, said that he was glad there was one thing the Almighty could not do, and that was to make two ranges of mountains without a valley in between.[9] On the floors of these numerous intervales—which range from small, narrow hollows among the hills[10] and along stream beds to quite extensive tracts of fairly level land—there is generally a light and fine type of soil that is easily worked and warms up quickly in the spring. In the lower portions of the river valleys and along Lake Champlain, there are limited stretches of territory where the elevation does not exceed five hundred feet. These are areas of smoother contour, better suited to agriculture under modern conditions, in which extensive use of machinery plays an important part.[11]

Since the people of most of northern New England have remained dependent upon farming as a livelihood, a summary of the stages of agricultural development in the United States will aid in understanding the problems of the hill-country farmer. According to Thomas Nixon Carver,[12] there have been five main periods in the history of the country. The first is coextensive

[8] Artman, *The Industrial Structure of New England*, p. 13.

[9] Vermont Board of Agriculture report for 1889-90, p. 302.

[10] Rural localities frequently take their names from such topography. For example, in Rochester, Vermont, there is "Rochester Hollow," referred to as "The Holler."

[11] Artman, *The Industrial Structure of New England*, p. 13.

[12] See Carver, *Historical Sketch of American Agriculture.*

with the colonial period and includes the years from 1607 to 1783, a time characterized by the clearing of forests, the breaking of the soil and its reduction to cultivation, experimentation with new crops and selection of those best adapted to conditions. Agriculture was in the main self-sufficing; the farmers and their families derived their subsistence chiefly from their farms and sold only the incidental surplus for cash or bartered it for merchandise. A second period extends from 1783 to about 1830. This is characterized by rapid expansion westward into the great interior valley, the development of the public-land policy of the Federal government, the rise of cotton to its predominant position in the South, and the beginnings of scientific methods in agriculture.

A third period covers the decades from the thirties to the sixties, during which an almost complete transformation occurred. At the beginning, farming was still practically self-sufficing; but by its close it had passed almost entirely into the commercial stage. Products were grown primarily for the market and were only incidentally consumed by the farmer and his family. Most of the epoch-making inventions in agricultural machinery—machinery which could not be used to advantage on the rough hill farms of upland New England—were brought into use. It was during these years that the railroads opened up the great interior of the country and the newly developing prairie states began to pour through these channels the floods of farm products that were soon to disturb the economic equilibrium of rural New England.

The fourth period lasted from the sixties to about the close of the century. It was an era of great agricultural expansion in the West, making the New England farms feel still more keenly the competition of prairie production. Stimulating factors in this expansion were the Homestead Acts of 1862 and 1864, the disbanding of the armies of the Civil War, when many a veteran went west instead of returning to his New England home, the

invention of the twine binder and the roller process of manufacturing flour, the building of the transcontinental railroads, the destruction of the Indian menace, and the development of the immense cattle and sheep ranches of the West.

A fifth stage in American agriculture began in the latter years of the century. It was a period of reorganization, characterized by the practical exhaustion of public lands, or at least of those portions which could be cultivated and made to yield immediate returns without the expenditure of a considerable amount of capital. In the eastern United States, and particularly in New England, the passing of the frontier and of fertile public lands accelerated the resort to more intensive methods of cultivation, reawakened the interest in agricultural education, and brought about an expansion of the functions of the national and state departments of agriculture and of the experiment stations connected with them.

While Dr. Carver's analysis of the agricultural history of the nation does not in all respects fit New England, it does suggest the general trend of development. Another authority has undertaken to make a similar analysis with that region particularly in mind.[13] The first period was one of self-sufficient economy, with little market for surplus farm products. In southern New England this stage lasted from its settlement down to about the first decade of the nineteenth century; in northern New England it continued well into the eighteen-twenties and thirties, and in the more inaccessible hill towns even into the forties and fifties.

The second period marked the transition, due largely to the stimulus afforded by the rise of manufacturing in the inland towns and villages, from self-sufficing agriculture to commercial agriculture. A demand for foodstuffs now arose on the part of the non-agricultural population. This phase lasted in southern New England from about 1810 to the close of the Civil War. In the northern section it began at different times after the first

[13] See Bidwell, *Rural Economy in New England*, p. 245.

quarter of the century, according to the remoteness of each locality from market and transportation facilities. The advent of the railroad in the late thirties hastened the trend away from self-sufficiency. This period, which continued through the sixties in northern New England, also saw the flowering of the sheep industry on the upland farms.

The third stage, which characterized the years from the seventies to the end of the century, and in many isolated hill localities even to the present, was one of marked decline in rural population and in improved farm land. The peculiar product of this period is the so-called "abandoned farm," which received wide publicity in the nineties. From a legal point of view, a more accurate term would be "unoccupied farm," for, in the strict sense of the word, few farms have really been abandoned. Practically all of these unoccupied farms continued to be held by actual owners who paid taxes on them. Technically, an abandoned farm is one that has reverted to the state or to the town on account of long-continued neglect and non-payment of taxes assessed on it.[14] In the nineties, however, many persons believed that the title of these farms had reverted to the state and that the government had large tracts for sale.[15]

During this period the sheep industry was practically wiped out because of inability to meet Western competition and Australian and South American imports of wool. The development of creameries for the manufacture of butter and cheese gave the hill farmer a new source of income, but the profit to be had from this form of dairying grew smaller as larger quantities of these easily transported commodities entered the Eastern mar-

[14] See discussion of this in *New England: What It Is and What It Is to Be*, p. 17.

[15] For example, in 1900, N. J. Batchelder, for the past twelve years Secretary of the New Hampshire Board of Agriculture, testified before the United States Industrial Commission: "The letters that we have received have indicated that many people suppose that there are large tracts of land that are offered for sale by the State; that the people have abandoned them and the titles have reverted to the State."—U. S. Industrial Commission, *Report*, Vol. X, Part 2, p. 40.

kets from the Midwest. Indeed, as the eighties passed into the nineties, the northern New England husbandman seemed to have nothing before him but increased competition from Western staple crops and a diminishing supply of family labor caused by the lure of better economic openings in the cities of southern New England and New York.

The most recent phase of the agriculture of northern New England dates from the first decade of the twentieth century and is not yet completed. While rural population has continued to decline, specialization has been accentuated on the farms that continue to be occupied.[16] This development has been most striking in the dairy industry. By the turn of the century, the cities of southern New England, then in process of rapid growth, were beginning to extend their milksheds[17] into the hill country; and so important to the economic welfare of the region did the exportation of fluid dairy products become that one investigator remarked in 1925, "Fresh milk to supply the needs of millions of city dwellers has become the greatest single factor in the agricultural revival in New England."[18]

None of the stages enumerated above are distinct; one merges into another. For example, the sheep industry was at its height in the forties and fifties, but was still a weighty factor in the welfare of the hill-country farmer well into the next period, following the Civil War; dairying grew in importance in the last three decades of the nineteenth century, as sheep raising declined, but it did not become the mainstay of the husbandman until after 1900. In each of these periods, the change was gradual. The paramount consideration was one of constant readjustment to new conditions. The abandoned farm was, of course, evidence of such a readjustment. The expanding fron-

[16] For a characterization of this period see Hypes, *Social Participation in a Rural New England Town*, p. 68.

[17] A technical term employed by dairymen to indicate the regions upon which a certain city or group of cities depends for its milk and cream supply.

[18] J. Russell Smith, *North America*, p. 106.

tier of cereal production brought about in American life a constant westward shifting of the centers of different types of agriculture. As a result, with the development of transportation facilities the older sections were forced into other kinds of production. New England, with its long-used and rock-covered soil, was particularly subject to transition.[19]

But it was readjustment and not disaster that took place in the New England hill country. By the end of the period under investigation, there were no more cheap Western lands to be had for a song, and freight rates were so high from the prairies to eastern centers of population that northern New England had an opportunity to grow commodities whose bulkiness, quality, and freshness were of primary importance. She might never again export beef or wool, but she could concentrate on fresh milk, fresh eggs, premium apples, premium maple sugar, potatoes, hay, and lumber.

[19] Craven, "Abandoned Farms of New England," p. 353.

## SUMMER: 1790-1830

In the four decades between 1790 and 1830, most sections of northern New England were blessed with the vigor of youth. They were growing rapidly, experiencing their summer of development. Increasing numbers of settlers poured into their virgin territory, and the frontier line advanced steadily northward toward the Canadian border and constantly upward into the more remote fastnesses of the White and the Green Mountains. The land was new and the people were alive to its possibilities; once a few acres had been prepared for cultivation, the first crops yielded large returns. If the restless husbandman in the earlier settled portions wanted to sell out and move farther north to undeveloped land on the frontier, he easily found a willing purchaser. The first two decades were those of the most rapid growth. The population of Vermont jumped 92 percent between 1790 and 1800, and 40 percent between 1800 and 1810; that of Maine rose 57 percent in the first decade and 50 percent in the second; while in New Hampshire, which had been settled longer, the number of residents mounted 29 percent and 16 percent respectively. Further increases in population occurred in the last two decades, until, by 1830, Vermont possessed 228 percent more people than in 1790, and New Hampshire 90 percent more, while Maine registered a 313 percent rise in inhabitants during this period.

# I

## THE AGE OF SELF-SUFFICIENCY

*From the richness of its soil, the variety and value of its products, the salubrity of its climate, the rapid increase of its population, the hardihood, industry, and enterprise of its inhabitants . . . (this region) cannot but be regarded as one important nursery of the human race and as a country where a great mass of happiness and virtue may be fairly expected in future ages.*[1]

IN THE early years, the buoyant spirits of the settlers filled the young land with a feeling of optimism. Life on the uplands of northern New England seemed full of promise. Here, avowed a Vermont historian in 1794, the settler had the most prospects and encouragements. The first crop of wheat would often fully pay him for all the expense he had incurred in clearing and sowing and fencing the land, and, at the same time, such improvement increased the farm's value to eight or ten times the original cost.[2] Here, Jeremy Belknap, New Hampshire's chronicler, testified in 1813, a good husbandman with the savings of a few years could purchase new land enough to give his older sons a settlement and assist them in clearing a lot and building a cabin, after which they would soon learn to support themselves.[3]

### Felicity

During this period northern New England was the frontier into which the adventurous Yankee might move to find his fortune. Settlers from Connecticut and Massachusetts sent home

[1] Dwight, *Travels in New England and New York*, II, 455, in describing the hill country of northwestern New England. This observer notes, however, "These high grounds are better fitted for grazing than for agriculture."—*Ibid.*

[2] Samuel Williams, *History of Vermont*, p. 312. "In two or three years," added this author, "he acquires a very comfortable subsistence for a family."—*Ibid.*

[3] Belknap, *The History of New Hampshire*, III, 237-38.

stories of the advantages offered by this new land, and even immigrants from the Old World wrote back to their friends and relatives, beckoning them on. The letter of T. Hands, written from Merrimack, in the County of Hillsborough, New Hampshire, and appearing in the *Monthly Magazine*, London, September, 1821, is filled with gratification over his situation.

> We have now a comfortable dwelling and 2 acres of ground planted with potatoes, Indian corn, melons, etc. I have 2 hogs, one ewe and a lamb: cows in the spring were as high as 33 dollars, but no doubt I shall have one in the fall. Half my land which was wood I have cleared this spring. . . . Now for the principal question: I can assure you I have made every possible enquiry and can safely invite you to this happy country. . . . Bring all the furniture you can in a ship direct from London and if you are a steerage passenger, lay in 68 days provisions or more.[4]

In these decades, and even into the thirties and forties, inaccessible hill farms were carved from the forest with little thought of their potential disadvantages.[5] Indeed, the view obtained that practically all of the land could be occupied profitably. While the Governor of New Hampshire admitted in 1837 that "a portion of terra firma" of the state was "forbidding" is aspect, he declared there was an abundance of land not yet brought into cultivation that would richly repay all the labor and expense that were bestowed upon it.[6]

Under the prevailing conditions the location of the farm was not vital to its successful operation. Altitude and distance from the village were not of so much consequence when only a few

[4] Hands, "An Emigrant's Chances in New Hampshire, 1821," pp. 111-12.

[5] A correspondent from Tamworth, New Hampshire, wrote in 1839 to the *Farmers' Monthly Visitor* of a visit to the region around Ossipee Mountain. He came across "a stream tumbling from the mountain in a continuous roar" and noted the "track of a road worn by travel" coming down the narrow gorge. It seemed that "the road conducted to some twelve or fifteen flourishing farms in the valley of this stream in the mountain, which had been cleared within recent years and whose products were abundant."—*Farmers' Monthly Visitor*, I (1839), 115.

[6] Hill, *Address before the Merrimack County Agricultural Society, October, 1837*, p. 3.

necessities were purchased from outside. The farmer supplied almost all his own wants. The wood lot fed the fire and furnished timber for the house, barn, and fences. The horse was shod and the wagon mended at home. The wheat and corn raised on the little irregular fields made the family's porridge and bread. The condiments, such as maple sugar, which made the staples of diet palatable, were produced to a considerable extent on the farm. Moreover, the pig, sheep, and cow, with the game that the farmer might catch, furnished all the meat. Indeed, one old couple in the town of Barnet, in northern Vermont, boasted on their sixtieth wedding anniversary, in the thirties, that they had never bought a pound of meat or flour or sugar during their entire married life.[7]

What little cash the hill-country farmer needed to pay taxes or to buy a few necessities he procured by selling products which could easily be transported long distances. It was not difficult to cart wool to town, even over steep hill roads.

> In the winter [wrote T. Hands in 1820 from southern New Hampshire], from 50 to 100 sleighs pass from Vermont *in the upper part of this state* to Boston with dead hogs, pork, butter, cheese, etc., and load back with store goods. They have generally 2 horses and travel 40 miles a day with a ton weight.[8]

A farmer often took the produce of several of his friends, in addition to his own, to the southern New England market, and brought back for himself and his neighbors a supply of what could not be raised at home.[9]

Up to the time when the completion of railroad connections between New England and New York opened southern New England to Western imports, the farmers of northern New

[7] Frederick P. Wells, *History of Barnet, Vermont*, p. 151. The situation in the hills of northern New England was similar to that existing in Massachusetts at about this time, when a farmer there could state in a pamphlet that he lived comfortably by the expenditure of $10 a year.—J. Russell Smith, *North America*, p. 66.

[8] Hands, "An Emigrant's Chances," pp. 111-12. The italics are the writer's.

[9] Frederick P. Wells and Edward Miller, *History of Ryegate, Vermont*, p. 193.

England found a good market for their livestock in urban eastern Massachusetts. The animals could transport themselves without serious harm, and it was even maintained that both cattle and sheep tended to gain weight on these long journeys by cropping vegetable growth along the side of the roads.[10] They were frequently sent southward in large herds. The toll keeper at the bridge over the Connecticut River between Windsor, Vermont, and Cornish, New Hampshire, for instance, makes note of the passage on Sunday, November 12, 1837, of "Gen'l Lyman Mower," with his following, which included "1 wagon, 1 sulky, 1 horse & rider, 600 sheep, 127 cattle."[11] Their destination was generally Brighton, one of Boston's abattoirs, where they were sold to local dealers for near-by consumption. Butchers from the growing factory towns were also prospective customers. In fact, in times of quick sales, a drover of cattle and sheep would often be accosted by a purchaser a day's journey from market and would sell his livestock without continuing to his objective. By the thirties, the trade had increased until on a single day as many as 8,000 cattle and 5,000 sheep would enter the Brighton market, coming from Maine, New Hampshire, and Vermont, and in lesser numbers from the interior of Massachusetts.[12]

Under these conditions, through the twenties and even into the thirties, most people felt contented with their lot on the hill-country farm. Although occasional stories of cheap land to be had in the fertile Midwest, or tales of quick money to be made in the rapidly developing factory towns of southern New England, may have caused momentary stirrings of dissatisfaction with the rough, back-hill locations, the majority of hill

[10] Wilson, "The Roads of Windsor," p. 382.

[11] *The Toll Bridge Journal of 1837*, entry for November 12. This journal belonged to the late Henry Steele Wardner of Windsor and New York.

[12] H. B. Hall, A Description of Rural Life and Labor in Massachusetts at Four Periods, p. 84. Boston's other abattoirs were at West Cambridge and Somerville. By the early forties, the Brighton market was referred to as "the great cattle fair of New England."—*Ibid.*, p. 143.

farmers concurred with the Governor of New Hampshire when he declared in 1839 that the agriculturists were much better off than any other class of men within his knowledge.[13] Indeed, one observer from a town in the west central part of the same state noted in the *Farmers' Monthly Visitor* of that year that:

> The almost universal condition of the inhabitants of Lyme is the possession of abundance of the good things of life. The difficulty is there that most of the farmers have money to let and there are few speculators anywhere with credit sufficient to hire it.[14]

### The Trend of Population

In the forty years following 1790, a greater proportion of the hill country gained in inhabitants than at any other period in its history. In these years, as we have already seen, the population of Maine increased threefold and that of Vermont rose two and one-quarter times, while the number of residents in New Hampshire nearly doubled. The map on page 21 shows the trend of population in the two northwestern states during this period. The majority of towns, it will be noted, registered increases at every census enumeration, and in the northern portions of both states those which lost fell in numbers only between 1810 and 1820.[15]

A number of factors were instrumental in bringing about the decline in population in the northern areas of the region during this decade. The War of 1812, with the resultant fear of British and Indian invasion from Canada, tended both to restrict immigration into these new and sparsely settled regions and to

[13] Isaac Hill, Governor of New Hampshire, addressing the Cheshire County Agricultural Association at Keene, September 25, 1839, as reported in the *Farmers' Monthly Visitor*, I (1839), 146.

[14] *Farmers' Monthly Visitor*, I (Sept. 20, 1839), 141.

[15] During this ten-year period Vermont registered the smallest increase of population between 1790 and 1830, returning gains of 79,000, 63,000, 18,000, and 44,000 respectively for the four decades. The figures for Maine showed a similar trend, the rises being 55,000, 77,000, 60,000, and 101,000, while the rate of growth in New Hampshire sank steadily, a gain of 41,000 being reported for the decade between 1790 and 1800, and gains of 30,000, 29,000, and 25,000 for the succeeding ones.

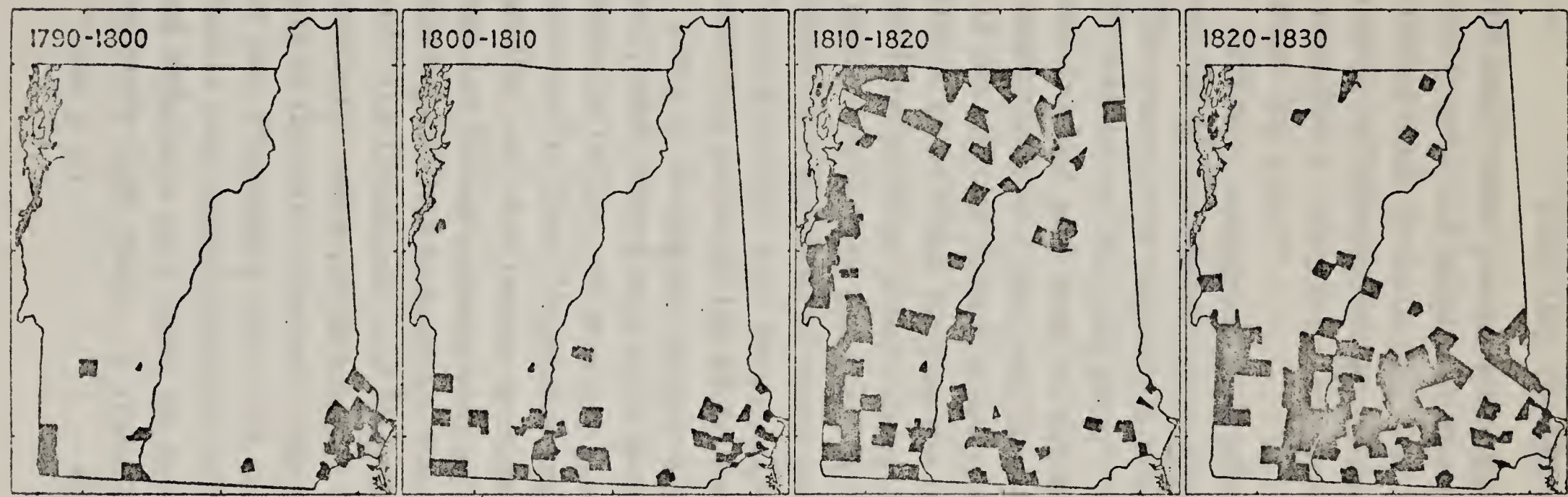
influence many of the more faint-hearted inhabitants to retrace their steps southward. Even before the war was actually declared, there was much unrest in the exposed townships lying along the Canadian border. In May, 1812, for instance, a special town meeting was called in Troy, Vermont,[16] to determine on action toward furnishing the local militia with arms and ammunition, and the selectmen were authorized to purchase twenty muskets and bayonets, together with twenty-five pounds of powder and a hundredweight of lead.[17] After the war had been declared, a veritable panic seems to have seized upon many citizens, especially in Vermont, which was more exposed to attack than its neighbor. A number of farms were abandoned by nervous settlers, and some of those who left never returned.[18] Out of the thirteen Vermont towns facing the border, eight lost in population in this decade, while twelve of the twenty-two towns on the shore of Lake Champlain, which was open to invasion by the British until McDonough's victory at Plattsburg in the fall of 1814, also dropped in numbers. In New Hampshire the only towns north of Squam Lake to decline in number of inhabitants at any time during this period were the four which fell between 1810 and 1820.

The hard times following the war was another influence leading to a loss of population during this decade, particularly in the central and southern sections of the two states. During the embargo and the ensuing war, when imports were excluded, a number of little factories had been built in this territory, utiliz-

[16] In 1810 the town of Troy, which is situated on the Canadian line just west of Newport, reported 281 inhabitants, and in 1820, 227.

[17] Crockett, *History of Vermont*, III, 55.

[18] Town and state authorities in Vermont erected palisades at Troy and Westfield, barracks and a guardhouse at Derby, a small fort at Lowell, and at Brownington a storehouse in which a stock of ammunition was placed, while in New Hampshire a fort was built at Stewartstown in Coos County. Spies were sent into Canada to learn of any proposed invasion and soon rumors were being circulated about the countryside that bands of Indians were approaching. In Vermont, families of the town of Highgate in Franklin County left their farms assembled together for protection against a reported Indian raid, but none materialized.—*Ibid.*, pp. 55-56.




POPULATION TRENDS BY TOWNSHIPS IN NEW HAMPSHIRE AND VERMONT, 1790-1830

Townships that have suffered loss of population are in solid black.

ing small water powers and offering employment to a considerable group of people. At the close of the war, an influx of foreign-made goods began, and not a few of these establishments, including woolen, cloth-dressing, and fulling mills, were compelled to shut down, forcing their employees to look elsewhere for work.[19]

Still more widespread in its effect upon the area in this decade was the distress caused by an almost total crop failure in 1816. This season was variously known in different sections of the hill country as "the cold year," "the famine year," and "eighteen hundred and froze to death." Spring weather came unusually early that year, and there were copious rains until May. On the night of June 8, a severe frost occurred, followed by a fall of snow which reached the depth of nearly a foot in the northern portions of both states. In one part or another of the region, frosts came and snow fell in every month of the year. Although a fair yield of winter grain was obtained, many other crops, especially hay, were complete failures, and many sheep and cattle perished that winter for lack of food.[20]

Days of fasting and prayer were observed in the churches, and people helped each other generously. A kind of bread was made by boiling and mashing potatoes and mixing them with corn meal or flour. Vegetables and berries were used wherever possible, and fish became a more common article of diet. At least ten fishing grounds were to be found, for instance, on the Missisquoi River in northern Vermont, between Swanton Falls and Lake Champlain, and large seines were kept in operation constantly, while people came to this region from the eastern part of the state to barter maple sugar and other commodities for fish. Everything that could possibly be eaten was utilized. Nettles were boiled, the roots of wild turnips were gathered, and hedgehogs were killed for food. Imported supplies sold at extremely high prices. A Waterford, Vermont, entrepreneur,

[19] *Ibid.*, p. 131.

[20] *Ibid.*, pp. 134-35.

for example, shipped a quantity of corn on a flat boat up the Connecticut River from Connecticut and sold it for $2.00 a bushel; rye brought $3.00 a bushel; and flour from Troy, New York, and Montreal sold at prices varying from $15.00 to $17.00 a barrel.[21]

While by far the greater number of towns in both New Hampshire and Vermont grew constantly throughout this period, in the earlier-settled portions of both states a marked and steady decline in inhabitants had set in by its end. In long-occupied Rockingham County, in the southeastern corner of New Hampshire, a number of towns lost population in more than one decade during these forty years, as did several lying near the height of land between the Merrimack and the Connecticut River valleys in the hill sections of southern New Hampshire. A further group of towns in the south central part of the state, in the Merrimack and Contoocook River valleys north and west of Concord, experienced their first drop in population between 1820 and 1830.

The southeastern corner of Vermont, the first area in the state occupied by white men, was also losing heavily in inhabitants. Guilford, the only town in either state which declined at every census during this period, was situated in this region. This community, which lies on the tiers of hills back of the Connecticut and which borders on Massachusetts, was in 1790, with a population of 2,432, the largest town in the state. During the next four decades, however, it fell by almost 700, reporting only 1,760 residents in 1830.[22] The sole town in this section to show no decrease was Brattleboro, which contained a growing industrial village. In the southwestern part of the state, the strip of towns along the New York border, a number of which had been settled at an early date, dropped in population during

[21] *Ibid.*

[22] Guilford is the only town in either of the two states which has lost in every census since 1700. Her decline is as follows: 2,432; 2,256; 1,872; 1,862; 1,760; 1,525; 1,389; 1,291; 1,277; 1,096; 870; 782; 769; 684; down to 663 in 1930.

the last two decades of the period, and two of them, Rupert and Arlington, during the last three.

These circumstances brought discontent to the inhabitants of the region, and not a few began to listen with increased interest to stories of cheap, rich land in the west. Indeed, so many citizens moved away from the hill town of Worcester, in north central Vermont, which suffered severely from the abnormal weather, that no town meetings were held there in 1817 and the town temporarily lost its organization.[23] The last three years of the decade brought fine weather, and bountiful crops resulted, enabling the farmers to reduce their debts; nevertheless, the remembrances of the hardships of the dread year remained fresh and induced a considerable number to migrate westward.[24]

### The Call of New Lands

An important factor in the decline in the earlier-occupied regions of southern Vermont and New Hampshire was the call of the new lands to the north and to the west. Ever since Thomas Hooker and his little band of companions left the Massachusetts Bay Colony in 1635 and toiled westward along the "Bay Path" to the Connecticut valley, New England has been faced with the specter of the attraction of virgin territory. Her citizens very early joined in that incessant search for cheaply acquired fertile lands "which has been one of the mainsprings of the growth of the United States."[25] As soon as the lower reaches of the Connecticut River valley had become fairly well filled, the "north country" commenced to look attractive. Following the French and Indian War, large numbers of settlers began to move into the northern New England states.[26] Between 1760 and 1775, one hundred new towns were planted by colo-

[23] Worcester had reported a population of 41 in 1810, but in 1818 only one family remained. By 1820, however, the number of inhabitants had mounted to 44.

[24] Crockett, *History of Vermont*, III, 135.

[25] Channing, *History of the United States*, I, 398.

[26] Bidwell, *Rural Economy in New England*, p. 384.

nists from Massachusetts, Rhode Island, and Connecticut in the frontier colony of New Hampshire. In what is now Vermont, seventy-four new towns were settled during the same period. Connecticut people migrating into this region often gave to the new locality the name of the old home from which they had come, and in Vermont alone there are now forty towns whose names repeat those of Connecticut.[27] Indeed, for a time, there was a strong movement to call this region "New Connecticut."[28]

No sooner had the pioneer farmer gotten his land in southern Vermont and New Hampshire well cultivated and his family comfortably settled, however, than he was eager to sell and move on to the new frontier. His ears were always open to tales of richer opportunities farther on. Distant fields always looked greener to him.[29] Land was cheap up on the frontier and farms in the older towns could be sold at good figures, either to newcomers from the south or to neighbors who added the purchases to their own property. In the latter cases, no one came in to take the place of the people who left and the town's population shrank accordingly. One Vermonter recalled in the nineties that as a boy he had moved with his father from Westminster, a few miles north of Brattleboro, to new lands in the north.

> Any man who wished to sell [he recollected] could get a fair price for his land and buy more in the northern part of the state for a far less figure. My father caught the fever and went with the others. . . . We moved in the fall of 1826.[30]

In the early years of this period there were also sporadic instances of migrations from the older communities into north-

[27] *Ibid.*

[28] Wardner, *The Birthplace of Vermont*, chapters i-iv.

[29] The spirit of restlessness, of eagerness to roam, so characteristic of all America at this time, was possessed by the New Englander to a marked degree. "The inhabitants of New England," declared George Washington in 1798, ". . . are continually spreading themselves."—John Bernard, *Retrospections of American Life, 1797-1811*, quoted in *American Social History as Recorded by British Travellers*, pp. 32-33.

[30] Thrasher, "A New England Emigration," p. 373.

ern and western New York. As early as 1791, for instance, a traveler recounts the case of a farmer on the Vermont-Massachusetts border, who, after clearing and getting his farm into a good state of cultivation and after building a substantial house and barn, was preparing to move on to the frontier in New York.[31] Again, in the first few years of the nineteenth century, numerous groups of people left for richer lands in virgin territory. A number of families from Danby, in southwestern Vermont, for example, journeyed to the Holland Purchase in western New York, and a colony of about one hundred persons departed for the West from Woodstock in the same state, while later, in 1818, eighty others from the same town followed. Although the westward movement did not reach large proportions until the next period, it grew to noticeable size during the twenties. Great canvas-covered wagons, drawn by horses or oxen, passed through this region, bearing on their side the words "Bound for the Ohio," says the local history of a town in western Vermont.[32] As the map on p. 21 indicates, of the 39 out of the 245 towns in Vermont at that time which shrank in numbers between 1820 and 1830, 33 were in the southern half of the state. In New Hampshire, which was settled earlier, 61 of the 228 towns declined, and all but one, Lyme, were in the southern part. In fact, during this last decade of the period, more towns in New Hampshire and Vermont combined lost in population than in any of the other three decades. By 1830, the buoyancy of life on the uplands had worn away; the stimulus coming from the opportunity of exploiting new land had departed, and the New England hill country found itself on the threshold of another epoch.

[31] Lincklaen, *Journal of Travels, 1791*, pp. 79-86.
[32] Crockett, *History of Vermont*, III, 136.

# AUTUMN: 1830-1870

During the four mid-century decades, the New England hill country passed through a protracted autumn, when the rural regions first reached and then passed the zenith of their development. In these years the majority of agricultural towns attained their maximum growth and, by the latter part of the period, the early frosts of the season, in the form of Western attraction and the lure of the city, began to cut down what had hitherto seemed to be vigorous stocks of deeply implanted families. Some towns, to be sure, enjoyed a brief Indian summer at this time, when a thriving sheep industry, the advent of the railroad, or the comparative newness of recently settled territory gave a warming assurance to their inhabitants. In comparison to the previous period, however, few localities gained many new inhabitants, and the growth of population in northern New England consequently began to slacken. While the number living in Vermont, as we have already seen, mounted 228 percent in the four decades preceding 1830, in the same length of time following that date the gain was but 17 percent. New Hampshire's population rose 90 percent between 1790 and 1830, but only 21 percent between 1830 and 1860, while in the decade between 1860 and 1870 she experienced the first and only loss of population in her history as a state, a decline of 2 percent. Similarly, the number of inhabitants in Maine mounted 313 percent between 1790 and 1830, and but 57 percent between 1830 and 1860, while in the Civil War decade there was a fall of .2 percent.

## II

## THE COMING OF THE RAILROAD

*The railroad was completed for business . . . November 6, 1848. With its opening a new era began for . . . all the north country . . . and changes, not always for the better, set in.*[1]

IN THE days of self-sufficiency, the farmer and his wife, and even the children, were busy at all times of the year. They found ways to be profitably employed in winter as well as in summer. The raising of feed crops for the livestock, much of which at a later period were purchased from the West, the care of the animals, the cultivation of the farm, and the manufacture of such products as butter and cheese were by no means the only occupations of the rural family. The farm homes were also miniature factories, and the men spent a considerable portion of their time, especially in winter, turning out a great variety of products, including hardware, whips, clocks, chairs, farm boots, and rope, besides a great multitude of minor articles such as axe handles, hames, and horse collars, and a miscellaneous assortment of goods commonly known as "Yankee notions."[2] Indeed, before the development of machinery for manufacturing shoes, a few farm communities in New Hampshire augmented their income by shoemaking. Weekly supplies of uppers, soles, linings, and other materials were available in certain towns, and the near-by farmers took them to their homes and brought back the finished product.[3]

The hard-working "womenfolk" were an important factor in "making the farm pay." The lot of the pioneer woman on the self-sufficing northern New England farm was not an enviable

[1] Frederick P. Wells and Edward Miller, *History of Ryegate, Vermont*, p. 152.
[2] Carver, "What New England Is Doing," p. 598.
[3] Woodworth, *Nute Ridge*, p. 4.

one. She literally "worked herself to death." But it must be realized that one of the reasons why the rough back-hill farm was able to yield a living was the fact that the women produced so many things which, at a later period, were bought.

Through the thirties, and even into the forties and fifties, in some of the more remote localities, the wife of the hill farmer supplied almost all of the meager wants of the family. She required little from without. The *Vermont Historical Gazetteer* points out that a good half of the load fell on the feminine side of the house:

> The women . . . picked their own wools, carded their own rolls, spun their own yarn, drove their own looms, made their own cloth, cut, made and mended their own garments, . . . made their own soap, bottomed their own chairs, braided their own baskets, wove their own carpets, quilts, and coverlids, picked their own geese, milked their own cows, fed their own calves, and went visiting on their own feet . . . and this last they frequently accomplished barefoot, carrying their only pair of shoes in their hands to save wear until they approached the meeting house.[4]

### Lessening Self-Sufficiency

But the farmer's wife did not long go barefoot to save wear and tear on shoe leather. The period 1815-40 saw many small factories established in southern New England, and within a short time their products were being sold to the farmers as well as to the city folk, trade being helped by the spread of the railroad net.[5] In order to procure the cash with which to pay for these purchases, the hill-country husbandman was forced to produce greater quantities of a few commodities, so as to have a surplus which he could sell. He had to raise more sheep, or make more butter and cheese, when his wife and daughters no longer spun yarn and wove cloth for the family garments. The

[4] Excerpt describing farm life of the twenties and thirties, *Vermont Historical Gazetteer*, III (1871), 837, 975.

[5] I. G. Davis and C. I. Henderson, *A Description of Connecticut Agriculture*, p. 46.

development of the factories, moreover, removed from the hill-country farms important subsidiary industries offering winter employment.[6]

Under these circumstances, the self-sustaining farm began to disappear. By the late twenties, an increasing amount of manufactured material was being bought from the new establishments. In 1829 the governor of New Hampshire alluded to these changed conditions in his message to the legislature and warned the farmers of the state that they should not expect to accumulate wealth and at the same time "support the style of modern days." They were consuming too many foreign articles, and he advised a return to republican simplicity.[7] By the thirties and forties, people in portions of northern New England more distant from the growing cities had come to depend to a larger extent upon outside purchases of clothing and other factory products, partly in place of the old-time homemade or locally made articles and partly to gratify desires which earlier generations did not even know.

By the fifties, most of the farms were no longer self-contained. While the farmer of the twenties

> paid out in money for his family the sum of ten dollars, not less than the sum of one hundred dollars will now suffice [complained a New Hampshire speaker in an address before the Connecticut River Valley Agricultural Society in 1853]. Every article of clothes has now to be bought with money or its equivalent. An immense . . . outlay of money is made yearly to supply even our farmers with breadstuffs. We make flour our principal of diet while we raise but very little.[8]

[6] Turner, "New England, 1830-1850," p. 160.

[7] Message of Governor Pierce to the 1829 Legislature, quoted in Stackpole, *History of New Hampshire*, III, 88.

"We are sorry," lamented Zadock Thompson, Vermont historian, in 1824, "to observe a propensity among those in ordinary circumstances to ape the rich and also a false taste by which some of our country misses attempt to heighten the charms of their persons by excessive ornament of dress."—*Gazetteer of the State of Vermont*, p. 39.

[8] In 1850, New England produced but thirteen quarts of wheat per capita in place of the required five or six bushels.—Turner, "New England, 1830-1850," p. 160.

The cultivation of flax, with the maunfacture of tow and linen cloth for summer apparel has ceased. Our daughters "no longer lay their hands hold of the distaff."[9]

The era of self-sufficiency had passed.

### The Spread of the Railroad Net

The change from self-sufficient to commercial agriculture was accelerated by the coming of the railroad, the rapid development of which marked the beginning of a new era, in which the old-time seclusion and independence gave way to a money economy, where production was for the market and wants were satisfied with purchased goods.[10]

The isolation of life in the New England hill country before the advent of railway communication is difficult to comprehend. Men and women were born, lived, and died without traveling twenty miles from the place of their birth. The evolution of the means of transportation from woodland trails to public roads, to turnpikes, and finally to railroads, all occurred in the first five decades of the nineteenth century.

Dissatisfaction with the so-called "public roads" maintained by each town led to the development of turnpike companies which flourished in the first decades of the century. Under this system, the burden of building and maintaining roads, incurred for the benefit of the whole community, was laid upon those individuals who used them. The turnpike companies built and improved roads and, in return, the state gave them, for a term of years, the privilege of collecting tolls from livestock, vehicles, and pedestrians at toll gates. The shorter the road, the less maintenance it demanded; and so the companies frequently straightened out the course of a wandering public highway and made it proceed directly to its goal, sometimes without refer-

[9] Comings, *Address before the Connecticut River Valley Agricultural Society*, p. 1.

[10] Batchelder, "The Agriculture of New Hampshire," pp. 118 *et. seq.*; Truesdell, *Farm Population of the United States*, p. 3.

ence to grades. By clearing away stones and trees, building bridges and culverts, and digging ditches at either side of the road, they secured material which was thrown into the middle of the road to make a crowned surface. By this means, it was hoped to provide for drainage, but this expectation was in many cases disappointed.[11]

The turnpikes failed to solve the transportation problem.[12] Many companies were organized by unscrupulous promoters, and the roads they constructed offered little improvement.[13] The tolls charged proved irksome and acted as a deterrent to intertown communication. By the forties, most of the turnpikes in the hill country had been taken over by the towns and converted into public roads.[13]

The rivers of northern New England furnished a means of shipping the heavier products to market. Vermont and New Hampshire were served by the Connecticut, and the latter state also made use of the Merrimack, while Maine had the Androscoggin, the Kennebec, and the Penobscot. Little canal construction took place in this region, except for locks around rapids and waterfalls of the river, for capital was scarce, population scanty, and the topography of the country uninviting for canal building.[14] By 1812, the Merrimack had been made navigable for boats of light draft as far north as Concord, New Hampshire; by 1830, the Connecticut had been opened as far as Wells River, Vermont,[15] though only one steamboat, however, ever plowed so far—one constructed, according to a local commentator, "for the navigation of heavy dew."[16] The high

[11] Bidwell, *Rural Economy in New England*, p. 315.

[12] Governor Pierce of New Hampshire declared in his message to the legislature in 1829: "Our farmers, and indeed every class of the community, are becoming daily more sensible of the necessity of increasing by every possible method our facilities of transportation."—Stackpole, *History of New Hampshire*, III, 88.

[13] Hayes, *History of the Town of Rockingham, Vermont*, p. 259.

[14] Sargent, Railroads and Their Regulation in New Hampshire, p. 17.

[15] Frederick Chase, Early Transportation History of New Hampshire, pp. 52 *et seq.*

[16] *The Centennial at Windsor, Vermont*, p. 34.

watermark of steam navigation on this river was reached in the early thirties, when boats plying the stream touched the more important points between Hartford, Connecticut and White River Junction, Vermont, and occasionally ventured even farther north.[17]

The larger part of the river transportation in northern New England was by flatboats, driven by poles and, if the wind was right, by large square sails, and assisted on the downward trip by the current. Filled with produce from the newly developed frontier, they were floated, for instance, down the Connecticut to Springfield, Massachusetts, or Hartford, Connecticut, where they were broken up for lumber or sometimes poled back up the stream with merchandise.[18] According to an old account, one boatman used to carry down this river "freestone, shingles, and other produce," and bring back "iron, sugar, molasses, grindstones, salt, while a specialty was made of new rum during the last of June."[19] Large amounts of lumber were frequently rafted down the stream.[20]

River traffic in northern New England, however, was never in a flourishing condition. Its utility was limited by the shallow beds, the numerous sand bars, and the fluctuating streams. The rivers needed constant improvement, freight rates were high, and during the winter months all shipping was brought to a standstill.[21] But it was the railroad which gave river transportation its deathblow.

The first railroad line to enter northern New England was built in 1838 along the Merrimack River from Lowell, in Massachusetts, to Nashua, six miles within the New Hampshire state line.[22] A short time earlier, in 1835-36, the Boston and Lowell Railroad had been constructed, and in 1836 the receipts

[17] Hayes, *History of the Town of Rockingham, Vermont*, p. 293.
[18] Wilson, "The Roads of Windsor," p. 383.
[19] Hayes, *History of the Town of Rockingham, Vermont*, p. 293.
[20] *Ibid.*
[21] Wilson, "The Roads of Windsor," p. 383.
[22] Goldthwait, "A Town That Has Gone Downhill," p. 538.

of the Middlesex Canal, connecting Boston with the Merrimack, had fallen off one-third. In 1838, when the railroad had been extended to Nashua, they had dropped another third; eventually, in 1853, business was suspended.[23] In 1840, southeastern New Hampshire was opened when the Boston and Maine Company reached Exeter.[24] The next year it touched Dover[25] and soon it was extended to Rollinsford and Somersworth. In the previous year, Portsmouth had been given communication with Boston.[26]

By 1842, the Nashua line had been pushed up the Merrimack valley to Concord, a distance of 34 miles.[27] There it stopped. The party in power in New Hampshire was determined that it should not go beyond, for this would make the whole north country tributary to Concord. Indeed, in 1842, the state legislature, by a vote of 136 to 84, passed a law that no railroad should be constructed thereafter until the corporation should first pay to the owner of lands which it proposed to cross whatever the proprietor should exact for the privilege.[28] For a while, this put an end to further railroad building.

The passage of this act was aided by a feeling of apprehension about the railroad in many towns. This sentiment found expression in one of the annual town meetings of Dorchester, a hill town situated just east of Lyme, one tier back from the Connecticut River. In 1842 its voters passed the following resolution: "That our Representative to the Legislature be instructed to use his endeavor to prevent, if possible, so great a calamity to our farms as must be the location of any railroad passing through."[29] The wishes of the Dorchester farmers were

[23] Frederick Chase, Early Transportation History of New Hampshire, pp. 42 *et seq.*

[24] By way of Atkinson, Plaistow, Newton, Kingston, and East Kingston.

[25] By way of South Newmarket, Newmarket, Durham, and Madbury. See map, p. 37.

[26] Stackpole, *History of New Hampshire*, I, 165; III, 171.

[27] *Ibid.*, I, 165.

[28] Frederick P. Wells, *History of Barnet, Vermont*, p. 234.

[29] *New Hampshire: Resources, Attractions, and Its People*, II, 452.

granted. No railroad train ever thundered through the township, and Dorchester in its isolated position declined in population in every following census, dropping 85 percent, from 769 to 115, between 1840 and 1930.

The Act of 1842 did not long remain in effect. Local dealers and progressive farmers in northern New Hampshire and Vermont desired rail connections with "The Hub"[30] and business men in Boston were also interested. In 1844 the New Hampshire Legislature empowered the railroad companies to take land for right of way by eminent domain, and, at the same time, established a state commission to settle problems growing out of land disputes.[31] Building was resumed and by 1850 most of the existing lines in the southern half of New Hampshire were in operation.[32]

In 1844 the Northern Railroad was chartered to connect Concord with White River Junction, Vermont, a distance of 69 miles;[33] in 1846 it reached Franklin, in the following year Lebanon, and in the next White River Junction. In 1848 the Concord and Montreal Railroad reached Tilton, arriving at Plymouth in 1850 and at Wells River, Vermont, 93 miles northwest of Concord, in 1853.[34] In the latter year the White Mountain Railroad constructed a line from Woodsville, just across the Connecticut from Wells River, up the valley of the Am-

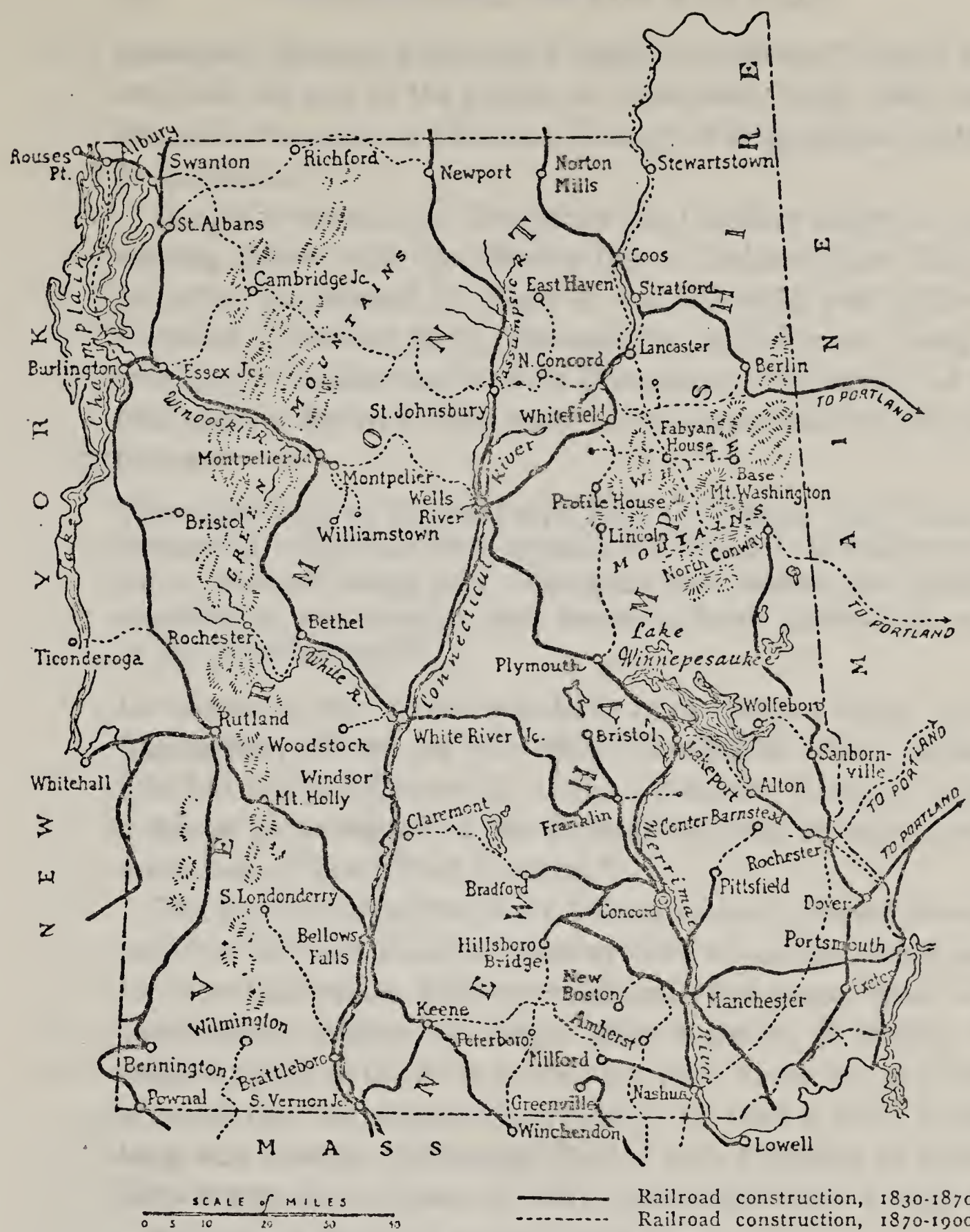
[30] *I.e.*, Boston. In May, 1847, the *Farmers' Monthly Visitor* prophesied, "Next year will open, through our new railroads, the northerly parts of New Hampshire and Vermont to daily access with the lower cities and towns upon the seaboard. Instead of sending the butter and cheese . . . to Boston once a year, it will go every week, and every day through the summer."—*Farmers' Monthly Visitor*, IX (May 31, 1847), 47.

[31] Sargent, Railroads and Their Regulation, p. 17.

[32] Goldthwait, "A Town That Has Gone Downhill," p. 538.

[33] Via Boscawen, Franklin, Andover, Wilmot, Danbury, Grafton, the southeastern corner of Orange, Canaan, the northwestern corner of Enfield, and Lebanon. See map, p. 37.

[34] Via Canterbury, Northfield, Tilton, Belmont, Laconia, Gilford, Meredith, New Hampton, Ashland, a corner of Bridgewater, Plymouth, a corner of Compton, Rumney, Wentworth, Warren, a corner of Benton, and Haverhill.—Stackpole, *History of New Hampshire*, I, 165 *et seq.*; *New Hampshire: Resources, Attractions, and Its People*, II, 452.




RAILROAD CONSTRUCTION IN NEW HAMPSHIRE AND VERMONT, 1830-1900

Construction on the road between Bethel and Rochester, Vermont, began in 1902

monoosuc through Bath and Lisbon to Littleton,[35] but it was not until the end of the period, in November, 1870, that trains began to run north of Littleton, through Whitefield and Dalton, to Lancaster.[36]

In southeastern New Hampshire the Cheshire Railroad, connecting Keene with the Boston line at Ashburnham, Massachusetts, was opened in 1848; in the following year this was extended to Bellows Falls, Vermont, the total distance being 53 miles, 43 of which were in New Hampshire. The arrival of the first train in Bellows Falls made a deep impression on all spectators.

> The engine came up in Grand style [said the *Bellows Falls Times* on January 14, 1849], and when opposite our Village[37] the Monster gave one of its most savage yells, frightening men, women, and children considerable, and bringing forth deafening howls from all the dogs in the Neighborhood.[38]

In this same year a road was built from Bellows Falls, up the Connecticut River on the New Hampshire side, through Charlestown and Claremont, over to Windsor, Vermont, where it joined an extension of the Central Vermont running southward from White River Junction.[39]

The lines just described were later developed into the through routes which constitute the main arteries of rail communication for New Hampshire. Between 1848 and 1870 many others were constructed, joining the larger cities together or linking the smaller places to the main routes, but these never became roads of more than secondary importance.[40] In 1848 a line 13 miles long was opened connecting Bristol and Franklin in central New Hampshire by way of Hill; in the same year a road was

[35] McClintock, *History of New Hampshire*, p. 574.

[36] Letter dated Nov. 23, 1932, received by the writer from the town clerk of Littleton, N.H.

[37] *I.e.*, when it had reached Walpole, N.H., across the Connecticut River.

[38] *Bellows Falls Times*, Jan. 14, 1840, p. 1.

[39] Crockett, *History of Vermont*, III, 348-51.

[40] Goldthwait, "A Town That Has Gone Downhill," p. 550.

built from Concord 29 miles west to Bradford, but it was not continued from there over to Claremont Junction on the Connecticut, a distance of 27 miles, until 1870-71.[41] In 1848, too, the line between Nashua and Worcester, Massachusetts, was completed, while in the following year Manchester was connected with Lawrence, Massachusetts, 20 miles of this road being in New Hampshire.[42] In 1849 also, a line was constructed from Contoocook, in the south central part of the state, to Hillsborough—a distance of about 15 miles; the following year, a railroad was built from Manchester 25 miles northwest to Henniker Junction.

The east central section of the state was provided with better transportation facilities in 1850, by the opening of a road from Rochester north to Great Falls. Thirteen years later work was begun to extend this to Conway, in the White Mountains. Union Village and West Ossipee were touched in 1866, and in 1867 the line reached North Conway.

Several branches were constructed in 1851. One went from Dover, in southeastern New Hampshire, 29 miles northwest to Alton Bay on Lake Winnepesaukee, while another was built north from Ayer, Massachusetts, up to Greenville, New Hampshire, 9 miles of which were in the latter state. A third was extended from Nashua northwest up to Wilton—a distance of 15 miles; in the same year the Ashuelot Railroad was opened between Keene and South Vernon, Vermont, 23 miles southwest.

In 1852 Manchester, on the Merrimack, was connected with Portsmouth, on the coast, by a road 39 miles long; in 1853 the White Mountain region was crossed by the Grand Trunk Railroad, which was being built from Montreal to Portland, Maine. Fifty-two miles of this were in New Hampshire—Stratford, Northumberland, Stark, Dummer, Berlin, Gorham, and Shel-

[41] Stackpole, *History of New Hampshire*, I, 165 *et seq.*; *New Hampshire: Resources, Attractions, and Its People*, II, 452 *et seq.*

[42] Covering the towns of Londonderry, Derry, Windham, and Salem.

burne being provided with railroad facilities. The last line laid in New Hampshire in this period was the seventeen-mile-long branch from Suncook up to Pittsfield, in the south central part of the state, which was finished in 1869.[43]

By 1870, New Hampshire possessed 900 miles of railway, constructed at an expense of over $30,000,000.[44] The accompanying map (p. 37) shows the amount of territory in the state that was provided new means of transportation by the latter date.

This period also witnessed the building of the more important lines in Vermont, the greatest amount of work being done between 1846 and 1849, when 250 miles of road were laid. In the early forties the opinion prevailed in many sections of the state that while such a thing as a railroad was possible in a level country like that between Boston and Concord, New Hampshire, it was wholly impracticable "up in Vermont,"[45] but despite this apprehension the construction of the Central Vermont, to extend diagonally across the state from White River Junction (the end of the line from Concord, New Hampshire) 104 miles northwest to Burlington, was undertaken in 1846. Ground was broken for the building of this road at Northfield, in the central part of the state, on January 28 of that year. By summer more than two thousand laborers, a considerable percentage of whom were Irish immigrants, were employed on the roadbed. On June 26, 1848, the first passenger train steamed from White River Junction up the valley of the White River to Bethel, a distance of 26 miles. On February 5, 1849, the first regular train was run to Northfield, and on June 20 of that year Montpelier, on the Winooski River, was reached. On December 31, 1849, a train went as far north as Winooski, just outside of

[43] Stackpole, *History of New Hampshire*, I, 165 *et seq.*; *New Hampshire: Resources, Attractions, and Its People*, II, 452 *et seq.*, 471 *et seq.*

[44] *Statistics and Gazetteer of New Hampshire*, p. 408.

[45] Frederick P. Wells and Edward Miller, *History of Ryegate, Vermont*, p. 234.

Burlington; within a short time connections were made with Burlington, but not until after a competing road had already reached Vermont's metropolis.[46]

The rival of the Central Vermont, the Rutland Railroad, had run a train into Burlington on December 18, 1849. Construction on this line, which was to extend from Bellows Falls northwesterly to Burlington, was begun on January 28, 1847; by December, 1849, only a short interval over the ridgepole of the Green Mountains at Mount Holly remained to be finished, and this was soon completed.[47]

Eighteen forty-nine marked the high point of railroad construction in Vermont.[48] While work was being done on the two lines stretching across the state from the Connecticut River valley to Burlington, new territory was being opened up in southwestern Vermont, between Bennington and Rutland, by the Western Vermont Railroad, and construction was being begun between Rutland and Whitehall, New York, on the southern tip of Lake Champlain.[49] On January 31 the Central Vermont completed a branch line from White River Junction 14 miles south to Windsor, to meet the line which was pushing north on the New Hampshire side of the Connecticut River from Bellows Falls. In the next month, on February 20, 1849, southeastern Vermont was given better transportation facilities by the completion of a road going northward from Massachusetts to Brattleboro. This was soon extended up to Bellows Falls.[50]

In the meantime, the northeastern section of the state was

[46] Crockett, *History of Vermont*, III, 348-51.

[47] *Ibid.*

[48] In April of that year the *Farmers' Monthly Visitor* recorded impressively that in Vermont and New Hampshire about "five hundred miles of railroad (were) finished or in progress."—*Farmers' Monthly Visitor*, XI (April 30, 1849), p. 55.

[49] *The Vermont of Today*, I, 234 *et seq.*

[50] Crockett, *History of Vermont*, III, 348-51; letter to the writer from the town clerk of Westminster, Vt., dated Nov. 23, 1032. Westminster is immediately south of Bellows Falls. See map, p. 37.

being penetrated by the Connecticut and Passumpsic Railroad Company, which was laying a road north of White River Junction along the valleys of the Connecticut and Passumpsic Rivers. An effort was made to have the first 22 miles of this line built on the New Hampshire side of the Connecticut, but the Vermont towns through which it would pass succeeded in keeping it on the west bank,[51] and Hanover, Lyme, Orford, and Piermont were left isolated.[52] By 1850 the road had reached St. Johnsbury,[53] and from there it was eventually extended northward, arriving at Newport, near the Quebec border, in 1862. Before this, however, the extreme northeastern portion of Vermont was given an outlet by rail by the completion, in 1853, of the road connecting Portland, Maine, with Montreal, and passing through the Vermont towns of Bloomfield, Brunswick, Brighton, and Norton.[54]

Connections between Bennington and Rutland were finished in 1850, and in 1851 the Vermont and Canada Railroad joined Burlington to Rouses Point, New York, on the Quebec border, a distance of 51 miles. The route it took was by way of St. Albans, and most of it lay in northwestern Vermont. In 1852 the southwestern border of the state was touched by a line which ran northward from Troy, New York, through Rupert, Pawlet, and Poultney to Castleton, where it connected with the railroad between Rutland and Whitehall, New York.[55] In 1860 the town of Pownal in the extreme southwest corner of the state was crossed by a road built north from Williamstown, Massachusetts,[56] while three years later the Vermont and Can-

[51] The deciding circumstance was the fact that if the road were built on the New Hampshire shore, the Connecticut would have to be bridged twice.

[52] Partly as a result of this, these towns declined heavily in population.

[53] Passing through the towns of Norwich, Thetford, Fairlee, Bradford, Newbury, Ryegate, and Barnet on the Connecticut River, and going up the Passumpsic valley through a corner of Waterford to St. Johnsbury. See *The Vermont of Today*, I, 237 *et seq.*

[54] Collins, *History of Vermont*, pp. 220 *et seq.*

[55] *Ibid.*; Rowland E. Robinson, *Vermont*, p. 364.

[56] Letter to the writer from Florence M. Wilson, town clerk of Pownal, Vt., dated Nov. 24, 1932.

ada built a line from Swanton a few miles north to the international border, where it connected with a road to St. Johns, and Montreal.[57] There was no further railroad building in the state until the seventies. The extent of territory in Vermont opened up by 1870 is shown on the map, page 37.

Maine, too, witnessed the construction of her most important railroads in the period between 1830 and 1870, with the exception of the Bangor and Aroostook which was built in the nineties.[58] The first line in the state was a short lumber road opened in 1835 between Bangor and Old Town.[59] In 1842 the road from Boston was extended from Portsmouth, New Hampshire, to Portland, Maine, by way of Saco, giving Maine rapid overland transportation connections with southern New England. Hitherto she had depended largely upon the sea routes. In the following year another road, the Boston and Maine, pushed into the state as far as South Berwick Junction, where it connected with the Portsmouth and Portland line.[60] In 1845 ground was broken for the Atlantic and St. Lawrence to join Portland with Montreal by way of northern New Hampshire and northern Vermont. Five years later the road was completed for business as far as South Paris, Maine, and in 1853 the way was cleared to Montreal when the two ends of the line were joined at Island Pond, in the northeastern corner of Vermont.[61]

The territory east and northeast of Portland began to be opened in 1849, when a line was built from Portland to Waterville. The Kennebec and Portland reached Brunswick and Bath in the same year and was completed to Augusta in 1852; in 1855, the Somerset and Kennebec line extended the road from Augusta on to Skowhegan. In 1855, also, Bangor was joined to Portland, and in the next decade and a half the railroad net

[57] *Burlington Free Press and Times*, Jan. 25, 1933, p. 4.

[58] See below, p. 172.

[59] *Maine: A History*, III, 707-10.

[60] It did not build an independent road from South Berwick to Portland until 1873.—*Ibid.*

[61] *Ibid.*

spread northward—reaching Dover from Bangor in 1869—and eastward—stretching from Bangor east to St. John, New Brunswick, in 1871.[62] By 1850 Maine possessed 245 miles of railroads, and by the early seventies her mileage had increased over 260 percent, to about 900 miles.[63]

In the three decades between 1840 and 1870 the expansion of the railroad net was perhaps the strongest single factor affecting life in northern New England.[64] The railway, lamented one town history published in 1878,

> brought a new order of things. The numerous teams and stages disappeared forever. From that day to the present, no ponderous wagon, with its white canvas covering, drawn by eight stalwart horses, has been seen wending its course along the Fourth New Hampshire Turnpike, its complement of passengers, and mountain of baggage, has rolled along the road, leaving a cloud of dust behind: all have gone,—nor will they ever be seen again.[65]

It was confidently expected that by putting the hill country in quick communication with the southern New England markets this new method of transportation would add immeasurably to the prosperity of the region.[66] One report to the *Farmers' Monthly Visitor*, from Montpelier, Vermont, declared rosily,

> The farmers of central Vermont are wakening up to their true interest. The new railroad passing by them will add fifty to one hundred percent at once to the productive value of labor to all those within twenty miles of its reach.[67]

For a few years, indeed, the growing factory towns of southern New England absorbed an increasing amount of agricultural products from the hill country, but when in the forties

[62] *Ibid.*

[63] John S. C. Abbott, *History of Maine* (Boston, 1875), p. 504. In 1873-74, Maine had 905 miles of railroad.

[64] Goldthwait, "A Town That Has Gone Downhill," p. 550.

[65] Coffin, *History of Boscawen and Webster*, pp. 208-11.

[66] Goldthwait, "A Town That Has Gone Downhill," p. 550.

[67] *Farmers' Monthly Visitor*, X (Jan. 31, 1848), 9.

and fifties the railways joined southern New England with the producing regions of western New York and the Midwest, the New England market was opened to a flood of cheaper agricultural staples. Nevertheless, before the gauges had become standardized and through trunk lines had been created, northern New England did not feel the competition severely. For instance, in spite of the fact that the territory was beginning to lose its supremacy in the Brighton and other livestock exchanges from 1850 on, it continued to dominate the Boston markets,[68] and it was not until after the Civil War that competition from the open ranges of the West killed the trade.[69]

To a certain extent, the introduction of the railroad proved to be a somewhat equivocal blessing. The advent of this new means of transportation tended to play havoc with many a little local industry which offered opportunities for employment for the sons and daughters of the near-by farmer and which provided to a limited extent a market for the producers in its vicinity.

> Before the 1850's [noted the history of a town in northeastern Vermont], woolen mills could be found in Barnet, Danville, Sutton,[70] Bath, Haverhill,[71] and other towns in this vicinity; foundries and machine shops at Bradford,[72] extensive iron works at Franconia, N.H.; tanneries and starch factories in almost every town . . . fulling mills, flax mills, carding mills and the like. When the railroads came, it brought the products of . . . manufacturing centers, the price with which the small country manufacturers could not compete and had to go out of business.[73]

Nevertheless, the railway did act as a stimulant to life in the regions which had a direct access to it. Most places fortunate enough to be on the route of the road flourished, at least for a

[68] See, *e.g.*, the *Vermont Watchman*, Jan. 23, 1851.
[69] H. B. Hall, A Description of Rural Life and Labor, p. 134.
[70] Vermont towns. [71] New Hampshire towns.
[72] In Vermont.
[73] Frederick Wells and Edward Miller, *History of Ryegate, Vermont*, p. 188; see also J. Russell Smith, *North America*, p. 77.

while.[74] The new facilities for transportation increased the variety and amount of products which could be profitably sold in southern New England. The cost of marketing was cut almost in half[75] making it possible to export at a profit such bulky articles as potatoes. Butter and cheese could now be marketed at frequent intervals. Within a few years the railroads commenced to run special "butter cars" to Boston.[76] For the first time, the hill-country farmers began to take serious thought of the quality of their herds, and the more progressive ones used the railroad to import Durham, Devon, and Ayrshire strains to replace the nondescript scrubs of the upland pasture.[77] In many localities, farm values in the vicinity of the new lines rose in price.[78]

It was in the sale of lumber and wood for fuel that the advent of the railroad proved particularly beneficial. The new roads practically doubled the activity of the lumber industry.[79] Forests hitherto inaccessible were now cut into with pioneer recklessness and sliced into boards at countless sawmills. "Hemlock and chestnut timber," observed one local account, "which had been considered of little account, rose to the former price of pine, while pine lumber made a corresponding advance.[80] Under the lea of the sawmills appeared a swarm of little wood

[74] Crockett, *History of Vermont*, IV, 236-37. In describing the construction (in 1846) of the new line through the locality, one town history declared that the employment of men it entailed and the disbursement of money for labor stimulated business in that civinity to an activity "surpassing that of any other period, perhaps in the town's history."—Coffin, *History of Boscawen and Webster*, p. 208.

[75] *Vermont Historical Gazetteer*, I, 459; III, 45.

[76] The St. Albans market, in northwestern Vermont, was the scene of the liveliest activity on Tuesday, which was "butter day."—Sherman, "Origin of the St. Albans Butter Market," pp. 159-60.

[77] *Vermont Historical Gazetteer*, II, 626; III, 45; V (Part III), 13; *Vermont Chronicle*, Feb. 17, 1852; April 19, 1855.

[78] *Vermont Historical Gazetteer*, III, 895; Swift, *History of Middlebury and Addison County*, p. 111.

[79] Defebaugh, *History of the Lumber Industry*, II, 155, as cited by Stilwell, Migrations from Vermont, p. 219.

[80] Coffin, *History of Boscawen and Webster*, p. 211.

works, producing washboards, butter firkins, clothes pins, pails, wooden bowls, carriages, chairs, bedsteads, ladders, and the like,[81] while "wood, for which there had been no market," stated the same town history, "was now worth five dollars per cord at the railroad."[82]

The locomotives themselves consumed much wood during the many years before coal was introduced as fuel. Even into the eighties, railroads in Vermont and Maine had "wood depots" along the route, and the New Hampshire Board of Agriculture declared in 1883 that wood annually consumed by the lines centering at Concord was "not less than about 70,000 cords, to say nothing of the thousands of ties used."[83]

The writer's father tells how, while attending school at Randolph, Vermont, in the late seventies, he used to earn his transportation from his home in Bethel seven miles away, by helping pile wood into the tender when the train stopped to "wood up" at "Chase Cut," halfway between the two villages. He also relates how, in 1869, Squire Bowen, Jr., sold his hill farm in the Gilead neighborhood of Bethel, and, with his six strapping sons, all over six feet tall, moved down to the valley. There he bought a farm for approximately $10,000 from a spinster whose father had recently died,[84] and mortgaged it back, the same day, for the full purchase price.[85] The farm was on the railroad and had a fine wood lot: it took him and his sons only eight years to pay off the mortgage, largely by selling the wood to the railroad company.[86]

In New Hampshire, in 1911, an investigator talked to a farmer, then sixty-three years old, who told him,

[81] *Vermont Historical Gazetteer*, I, 220-21, 514, 592-93.

[82] Coffin, *History of Boscawen and Webster*, p. 211.

[83] New Hampshire Board of Agriculture report for 1883, p. 71.

[84] The deed for the farm is dated Jan. 28, 1869, and recorded in *Bethel Land Records*, Book XVIII, p. 334.

[85] The mortgage is recorded in *Bethel Land Records*, Book XVIII, p. 335.

[86] The discharge of the mortgage, signed by Miss Lois Smith, dated May 4, 1877, is recorded in *Bethel Land Records*, Book XVIII, p. 335.

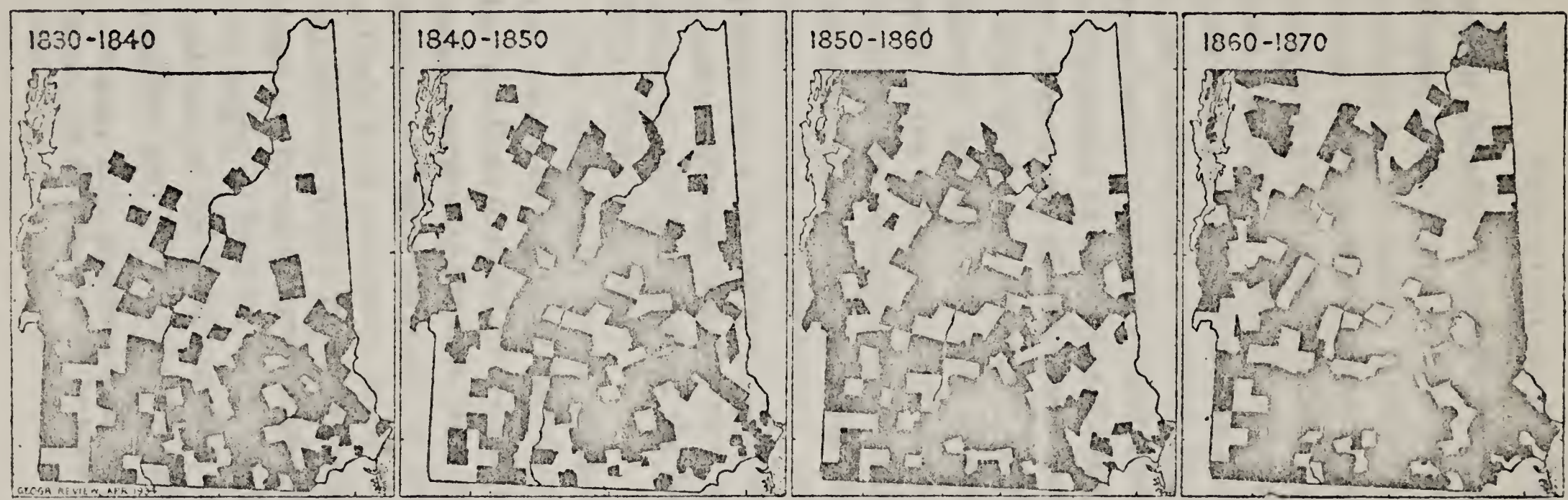
We were better off in my boyhood, not merely by comparison, but actually. We actually had more money. For instance, the railroad used to burn wood and paid $5.50 a cord—not best quality wood, either. . . . Today . . . we get $4.00 a cord for first quality wood. . . . It was a blow to us when the railroads began to burn coal.[87]

The railroads, however, did not bring to the hill country the new lease of life that had been anticipated. Instead of being checked, the decline in rural population intensified.[88] Manufacturing centers grew faster than before, and the rising generations of boys and girls felt the urge of the city, while the new lines of communication made the rich open lands of the West seem much more attainable. As one town history declared, the railroad by bringing people into contact with the outside world, "gave the more energetic of the younger element the idea of bettering their fortunes."[89] Before considering such disturbing factors as the West and the city, however, a discussion of the trend of population in this period will be helpful in understanding the situation.

### The Trend of Population, 1830-1870

Upland interior New England suffered heavier losses of inhabitants in these years than in the forty years before 1830, as is indicated by the maps on page 49, which show the trend in each of the different towns in New Hampshire and Vermont in the decades from 1830 to 1870. It is immediately evident that a much larger extent of territory was losing residents than in the preceding period. The area declining has advanced northward until some of the earlier-settled sections in the central parts of both states show a drop in numbers for every enumeration of the census. On the other hand, some of the more remote towns along or near the backbone of the Green Mountain range in the central portion of Vermont gained steadily throughout

[87] Curtis, "A Prosperous New Hampshire Farmer," pp. 139-40.
[88] Goldthwait, "A Town That Has Gone Downhill," p. 538.
[89] W. F. Whitaker, *Some Things about Coventry-Benton, New Hampshire*, p. 67.




POPULATION TRENDS BY TOWNSHIPS IN NEW HAMPSHIRE AND VERMONT, 1830-70

Townships that have suffered loss of population are in solid black.

the four decades. Population was pushing into new lands, for example, in the towns of Chittenden, Stockbridge, Ripton, and Granville in this region. Moreover, much of the northern area of both states gained constantly during the entire period, particularly in Coos County in New Hampshire and in Orleans and Essex Counties in Vermont. These regions were still comparatively new and undeveloped. In the last-named county, situated in the northeastern corner of Vermont, all of the older river towns bordering on the Connecticut, except Bloomfield, declined in population at some time during the period, but only two of the seven newer upland towns showed any loss.

Most of the few remaining bright spots on the maps for the different decades, scattered through the central and southern parts of the two states, were either thriving industrial cities, or towns whose non-agricultural village population was steadily increasing because of growing payrolls in small textile mills, wood-working establishments, and the like, while a few depended upon the railroad business for the maintenance of their economic life—as was the case with Hartford, in east central Vermont, which contained the bustling and smoky village of White River Junction.[90]

The majority of towns which lost in every enumeration of the census during these four decades were the localities which had not been touched by the railroad. While communities in the valleys served by the new lines were becoming increasingly important, villages marooned on the heights, once the centers of a lively local commerce, found themselves left high and dry by the shift of trade routes. In Vermont, examples of this type of town are Barnard, near the geographical center of the state, on the height of land between the watershed of the White River and that of the Ottauquechee; and, a few miles to the south, Andover and Windham on the hills between the Black and the

[90] White River Junction became an important railroad center in the latter forties, and the population of the town of Hartford has mounted steadily since 1850.

West Rivers. Stoddard, Washington, Lempster, Unity, Langdon, Alstead, and Croydon, all in the southwestern quarter of New Hampshire, were in a similar condition.

A number of localities bordering on a lake or on a large river which had formerly served as a means of outlet for their products also found themselves isolated, as the railroad, passing them by, went through a neighboring township.[91] A series of towns on Lake Champlain in Addison and Rutland Counties, almost all of them off the railroad, declined in numbers at every census of this period.[92] Similarly, the river towns of Piermont, Orford, and Lyme, New Hampshire, along the Connecticut and off the railroad, lost steadily, while Hanover, immediately to the south, went into a decline, beginning in the second decade of this period, from which it did not successfully emerge until the growth of Dartmouth College in the second and third decades of the next century increased its permanent village population.[93]

During these four mid-century decades 56 percent of the towns in Vermont attained their greatest growth, while but one percent had previously arrived at a similar eminence. A study of population statistics by towns shows that the crest of the wave proceeded from southern to northern Vermont. Guilford in the southeastern corner of the state arrived at its maximum as early as 1790; in 1810, when sections of the north were still unoccupied, other towns in the southern portions reached their

[91] See, *e.g.*, example cited in Somers, *History of Lancaster, New Hampshire*, p. 267.

[92] Another cause for the decrease in population in these counties was the fact that they were in the heart of the sheep-raising territory. The tendency of prosperous farmers to buy up neighboring farms and turn them into sheep runs led to a decline in the human population of the community. See Swift, *History of Middlebury and Addison County*, p. 95; Joslin *et al.*, *History of the Town of Poultney, Vermont*, p. 81. Also see below, p. 79.

[93] Hanover grew from 2,361 to 2,613 between 1830 and 1840, and then shrank in population until it reached 1,817. It rose to 2,085 in 1910, however, and to 3,043 in 1930. Lyme, whose population began to decrease in 1830, continued to fall in numbers in every succeeding census; Orford dropped from 1,707 in 1840 to 636 in 1930; and Piermont from 1,057 in 1840 to 475 in 1030.

height. By this date, ten towns in southwestern Vermont, along with three river and seven hill communities in the southeastern part, had attained this position. By 1820 a few towns in the Windsor region, immediately to the north of this latter area, had arrived at their high point; in the next two decades, a number in the central portion of the state had reached a similar condition, while by 1850 and 1860 a large number of towns in northern Vermont and along or near the backbone of the Green Mountain range[94] were at flood tide.

The majority of towns in New Hampshire also reached their maximum population before 1870, although more attained their height before 1830 than in Vermont. The only localities which grew after 1870 were those, mostly in the southern half of the state, which enjoyed the advantages of well-established local industries, or those which had not been occupied to any extent until the beginning of this period—a situation true of the White Mountain region in the northern part. As in Vermont, the ebb tide spread northward across the upland. As early as 1790, three towns in long-settled Rockingham County in the southeastern corner of the state came to their highest point,[95] and in 1800 Westmoreland, Chesterfield, Windsor, and Hollis, in southwestern New Hampshire, attained a similar position. In 1810 Alstead and Nelson, north of Westmoreland; Sharon, Temple and Greenfield, north of Hollis; and Lee and Madison, immediately north of Rockingham County, reached their maximum; while in 1820 thirty-one towns, the largest number of any decade in the history of the state[96] were at flood tide. Most of these were in the central portion of the state in Merrimack and Sulli-

[94] Such as Stamford, Searsburg, Wilmington, Somerset, Jamaica, Londonderry, Weston, Mendon, Sherburne, Pittsfield, Rochester, Warren, Fayston, Starksboro, and Duxbury.

[95] One of them, Southampton, bordered on Massachusetts, as did Guilford in Vermont. The other two were Kensington and Sandown.

[96] Twenty-eight reached their maximum in 1830, seventeen in 1840, twenty-five in 1850, twenty-nine in 1860, five in 1870, nine in 1880, fourteen in 1890, nineteen in 1900, seven in 1910, and thirty in 1930.

van Counties, and in northern Cheshire County. In 1830, when twenty-eight towns reached their high point, and in 1840, when seventeen followed suit, territory still farther north, in Grafton and Carroll Counties, arrived at its peak, while in 1850 and 1860, northern Carroll County, and even a few towns in Coos County, the northernmost in the state, attained their greatest growth.

The largest number of Vermont towns recorded by any enumeration as reaching their height was shown in the census of 1830, but the maximum rural population of the state was not attained until 1850.[97] While the total number of inhabitants has risen constantly since 1850, with the exception of a slight fluctuation between 1910 and 1920, this is chiefly due to the development of the ten largest towns of the state,[98] whose growth is not only responsible for the increase, but also for making up the decided loss in rural inhabitants.[99]

The rural population of New Hampshire began to decline earlier than that of Vermont, for by 1840 it had passed its maximum.[100] As in Vermont, however, the total population of the state has increased steadily, except for the decade between 1860 and 1870, for the decline in the agricultural population has been much more than offset by the rapid growth of the industrial cities and villages, for the most part in the southern half of the state. A few rural towns, to be sure, increased in population after 1840. The local history of a hill town in the north central part of the state, for instance, states that the number of its inhabitants continued to mount up to 1850, although from

[97] Rossiter, "Vermont," p. 415.

[98] Those having a population in excess of 5,000 in 1919. They are Burlington, Rutland, Barre, Montpelier, St. Albans, St. Johnsbury, Bennington, Brattleboro, Bellows Falls, and Colchester, in which town is the small incorporated city of Winooski.—*Ibid.*, pp. 420 *et seq.*

[99] By 1910 the population of the state outside of the ten towns mentioned above had decreased 27,261 when compared with the same population in 1850. These ten towns, however, increased 69,097 during the sixty-year period.—*Ibid.*

[100] Goldthwait, "A Town That Has Gone Downhill," p. 534.

1830 to that time the growth was largely from within, the children of settlers making homes for themselves near their parents, with few newcomers. After 1850 it commenced to lose slightly, but no real decadence or abandonment of farms was noticeable until after the Civil War.[101]

Maine, whose large frontier region was still being settled in these mid-century decades,[102] did not reach its maximum rural population until Vermont's was declining. Between 1850 and 1860, only 39 percent of the towns in Maine lost in numbers, while the proportion for Vermont was 53 percent and for New Hampshire 47 percent. From 1860 to 1870, however, 55 percent of the towns in Maine declined, an increase of 16 percent over the previous decade, while those in Vermont rose to 59 percent of the total, and in New Hampshire to 73 percent.[103] This last decade, of course, included the Civil War years.

In general, no sooner had the towns of northern New England rounded out their growth than they began to find it difficult to maintain their status. While a few kept their vigor by stimulating railroad connections or by the enlivening development of village industries, the majority of those in the uplands were by

[101] W. F. Whitaker, *Some Things about Coventry-Benton*, pp. 66-67. This town, Benton, in the northern portion of Grafton County, reached its maximum population (478) in 1850; in 1930 it reported but 255 inhabitants.

[102] While Vermont's population rose 21 percent from 1830 to 1870, and New Hampshire's but 18 percent, that of Maine mounted 56 percent. For exact figures, see Appendix 2, Table I.

[103] New Hampshire Board of Agriculture report for 1888, pp. 68-69. Between 1850 and 1860, 145 out of 372 towns in Maine lost in inhabitants; 133 out of 247 towns in Vermont, and 95 out of 201 in New Hampshire, lost in population. Between 1860 and 1870, 319 out of 580 towns in Maine lost (372 towns in this state were reported in census statistics in 1860; in 1870, the number had risen to 580). During the same period, 148 out of 248 in Vermont, and 168 out of 231 in New Hampshire had fewer inhabitants. In contrast, southern New England, where there was a steadily growing urban population, had a smaller proportion of towns losing in inhabitants, 33 percent of Massachusetts towns, 34 percent in Connecticut, and 15 percent in Rhode Island declining between 1850 and 1860. In the next decade, however, the proportion was larger, with 48 percent of Massachusetts towns, 45 percent of those in Connecticut, and 43 of those in Rhode Island decreasing in size.—*Ibid.*, pp. 68-69.

the middle of the century entering into a decline from which they were never to emerge. A discussion of the major outside factors intensifying hill-country troubles during this period, and an investigation of an important agricultural industry which tended to alleviate dissatisfaction to some extent will explain the situation more fully.

## III

## EXTERNAL CAUSES OF UNREST

*Come, all ye Yankee farmers who wish to change your lot,*
*Who've spunk enough to travel beyond your native spot,*
*And leave behind the village where Pa and Ma do stay,*
*Come follow me, and settle in Michigania.*
*Yea, yea, yea, in Michigania.*[1]

ALTHOUGH the wholesale abandonment of farms in northern New England did not begin until the last quarter of the nineteenth century, from the twenties on there was a continuous outflow of population, which by the late forties and early fifties was reaching proportions that deeply distressed those who remained at home.[2] While the advent of the railroad was influential in arousing a spirit of unrest in the population of the hill country, more serious in their effect upon the life of the region in this period were the following external factors: the development of the West, the growth of the city, and the upheaval caused by the Civil War. These have been named in the order of their importance, and will be considered in that sequence.

### The West

The Midwest, and later the trans-Missouri territory, acted in a twofold way upon northern New England—as a magnet which attracted the ambitious youth of the hill country as well

[1] Verse from popular song of the period, given in Mathews, *The Expansion of New England*, p. 227.

[2] These mid-century decades were not lacking in other danger signals, warning of the approaching storm. For example, a salient trend of the next period was foretold in 1852 by the local history of an upland town on the southern edge of New Hampshire when it observed, "There is a tendency to concentrate in the vallies [*sic*] and give up the old mountainous and rocky farms to pasturage."—Kidder, *The History of New Ipswich*, p. 49.

as its discontented farmers, and as an increasingly dangerous competitor in agricultural production.

Once the spell of newness had worn off the virgin northland, the adventurous, the ambitious, and the energetic fared forth, this time westward. "Throughout New England," deplored a contemporary in 1835, "you will not find one in twenty who lives where his fathers lived or does as his fathers have done."[3] Two decades later the *New England Farmer* pointed to the "*moving, nomadic character* of our population" as one of the great obstacles to the successful prosecution of agriculture in New England. "This spirit of restlessness, of dissatisfaction with our present condition and desire to improve it by change," it remarked bitterly, "is attempted to be sanctified by calling it the *spirit of the age* or *indomitable Yankee enterprise.*"[4]

It was the young people who were most eager to move. In a list of 335 emigrants going west from Vermont in the late eighteen-twenties, for example, 258 were under thirty years of age and 170 of these were under twenty-five.[5] They were being forced out of the hill country by economic circumstance, for there was developing in northern New England in the twenties and thirties a condition which has been called in technical terms, "a crippled state of agriculture."[6] The urban area of southern New England had not yet grown to such an extent as to offer an important market for the produce of the hill-country farmer, nor was there adequate means of transportation. The entire increase of population was thus forced either to share with the established farmers what was already inadequate for them, or emigrate. It was in their very blood to choose the course of emigration.

The emigration westward increased from year to year. While

[3] Contemporary account, quoted in Bidwell, *Rural Economy in New England*, p. 390.

[4] *New England Farmer*, VI (March, 1854), 127. The italicized words appeared thus in the farm journal.

[5] Stilwell, Migrations from Vermont, p. 146.

[6] Bidwell, *Rural Economy in New England*, p. 390.

in the early twenties only a few were leaving, the opening of the Erie Canal in 1825 and the extension of steam navigation on the Great Lakes in the thirties greatly facilitated the movement.[7] For a while, the states and territories bordering on the Lakes received the largest number of immigrants. In 1837 it seemed to one contemporary "as if all New England were coming" to that region.[8]

As the century advanced, the population of southern New England grew rapidly.[9] While this increase was characterized by a strong tendency toward urban concentration,[10] with a consequent growth in the market for agricultural products, the hill country was little benefited, for the development of rail communication between the West and southern New England was making it possible for the Western farmer to undersell the near-by producer in the eastern markets, even while adding the cost of shipping to his basic costs. The completion of railroad connections between New England and the Lake ports in the early forties quickened the exodus from the hill country;[11] as the network of lines through the Midwest widened, the migration accelerated.

Futile attempts to stem the tide were made by leaders in the hill country as well as by contemporary agricultural periodicals, which endeavored to present to those contemplating moving westward the advantages of their native region. "In the West," admitted the *Farmers' Monthly Visitor* in 1841, "many a man with small means may do better . . . in a pecuniary view, than . . . on the rocky and sterile lands of the East." But, it warned,

[7] Turner, "New England, 1830-1850," pp. 148-59.

[8] A. D. P. Van Buren, "Pioneer Annals," *Michigan Pioneer Society Collection*, V, 249, quoted in Mathews, *The Expansion of New England*, p. 276.

[9] Between 1810 and 1860, the population of southern New England mounted from 811,000 to 1,865,000, a rise of 130 percent.

[10] In 1810, one out of every fourteen (7 percent) of the inhabitants of southern New England lived in towns of over 10,000, but by 1860, one out of every three (36.5 percent) were in that classification.—Bidwell, *Rural Economy in New England*, p. 353.

[11] Turner, "New England, 1830-1850," pp. 148-59.

"the social, moral, literary and religious privileges are there much less."[12] Four years later, in the glow of hope kindled by the expansion of the railroads through northern New England, the same journal declared, "Here the farmer has a ready market for all he can raise at much higher prices than in the West and as manufactories increase, the demand is more than the supply."[13]

As the migration continued, efforts were made to paint the West in unattractive colors. In 1849, for example, the *Gazetteer of New Hampshire* wondered why anyone should wish to leave "his own paternal fields, . . . in a high, hilly, region," with "pure water flowing plentifully," to go to a country where, although "labor is comparatively high, land cheap, and winters lose much of their rigor and length, . . . fever and ague sap the constitution, and send back the adventurer a lean, sallow invalid for life, or lay him prematurely in the grave."[14]

But warnings that he would be laid "prematurely in the grave" did not keep the Yankee at home. By 1850, for instance, over 145,000 Vermonters, almost half as many as the total population of the region at that time, had moved into other states.[15] Of these, 52,000 were to be found immediately west, in nearby New York, 14,000 in Ohio, 3,000 in Indiana, 11,000 in Michigan, 11,000 in Illinois, 10,000 in Wisconsin, and 1,000 in Iowa.

In September, 1848, news of the discovery of gold at Sutter's Fort in California reached northern New England,[16] and for a few years the Far West rivaled the states and territories in the Middle West as a magnet for the sons of the hill country. It was not long after the arrival of the first reports before many of the more ambitious and adventurous spirits had set out on

[12] *Farmers' Monthly Visitor*, III (Nov. 30, 1841), 176.

[13] *Ibid.*, VII (May, 1845), 71. See also similar arguments in the *New England Farmer*, II (October, 1850), 365.

[14] John Hayward, *A Gazetteer of New Hampshire*, p. 22.

[15] The population of Vermont in 1850 was 314,120.

[16] *Vermont Chronicle*, Sept. 27, 1848; *Vermont Watchman*, Dec. 21, 1848.

the long trip to the gold fields. While some went as individuals, or in groups of two or three, a large proportion traveled in companies formed in various localities.[17] A band of fifty-one Vermonters was organized in Montpelier, for example, in February, 1849, and by the next April they were at Panama, where they sent word back of their progress and complained of the difficulties of securing transportation to California and of the high cost of living on the Isthmus.[18]

Business concerns in southern New England were quick to take advantage of the California craze, and in the early part of 1849 a Boston equipment house was proclaiming in the Vermont papers the advisability of purchasing from them before setting out, "Feather River Overcoats—Spanish or California Cloaks—Sutter's Long Mining Waistcoats—Isthmus Bags for Pack Mules—Gold Bags—El Dorado Caps—Red Flannel Shirts and Drawers, Dirks and Pistols,"[19] while passenger agencies were advertising accommodations for California and the sailings of steamers for Chagres on the Isthmus and of clipper ships around the Horn were announced with "attractive rates."[20]

By 1850, eleven hundred Vermonters had actually reached California, and many more had turned back or died on the way,[21] while the stories of quick riches had led a proportionately large number of the more venturesome in New Hampshire and Maine to set out. In the history of a rural region in central New Hampshire the author recalled "the great excitement in town after news of the discovery of gold in California" and noted that "a few of the more adventurous" had fared forth, going overland by Salt Lake and "suffering great hardships."

[17] *Vermont Watchman*, Feb. 1, Feb. 8, and Feb. 22, 1849.
[18] *Ibid.*, April 26, 1849.
[19] *Vermont Chronicle*, April 25, 1849.
[20] *Vermont Watchman*, Nov. 1, 1849; July 4, Aug. 22, Oct. 10, 1850.
[21] *Vermont Historical Gazetteer*, IV, 1057-58; *Vermont Watchman*, May 16, Aug. 22, 1850.

Unfortunately for the town, he lamented, it was the "young men in the prime of life" who departed.[22]

Here and there sporadic efforts were made to combat the "California disease." The *Farmers' Monthly Visitor,* for instance, published in May, 1849, an editorial entitled "The New Hampshire Mountains Better than California Gold Mines," declaring that there was more money to be made in lumbering on the mountains of the home state than in placer mining in far-off California.[23] But it was the reports which drifted back from the gold fields—tales of the laboriousness of the work, the uncomfortable and dangerous living conditions, the long wet season, the toll exacted by scurvy, pneumonia, and fevers, and the infrequency of "lucky strikes," which cooled the fever.[24] The migration to the Far Western gold fields began to subside in the early fifties. The *Farmers' Monthly Visitor* reported with relief in 1852, "The California fever exists at the present time but under a very mild form,"[25] and between 1852 and 1854 the cost of steerage passage to California via the Isthmus dropped from $200 to $25.[26]

During this decade the new lands west of the Mississippi began to be the mecca for immigrants from northern New England. Letters from those who had moved into Wisconsin, Iowa, Minnesota, and Missouri poured back to their relatives and friends at home, and many were published in the local newspapers. These descriptions, filled with paeans to the cheapness of the land and the healthfulness of the climate, led many hill farmers and their sons to regard the region as a Promised

[22] Coffin, *History of Boscawen and Webster*, pp. 210-11.

[23] Lumber, it explained, was widely used for building in the growing manufacturing towns and could be brought down the Merrimack valley and carried by the new "Nashua and Worcester railroads . . . into the heart of Massachusetts and even to Rhode Island."—*Farmers' Monthly Visitor,* XI (May 31, 1849), 70.

[24] Channing, *History of the United States,* VI, 50-52.

[25] *Farmers' Monthly Visitor*, XII (January, 1852), 10.

[26] *Vermont Watchman*, April 29, 1852; *Burlington Sentinel*, Feb. 3, 1853; March 2, June 23, 1854.

Land. The New England husbandman was naturally impressed when he read of the ease and swiftness with which the sod in the West could be turned and the first crop planted,[27] or that the soil there was so rich that it would produce seventeen successive crops without manure.[28] Indeed, so avid were Vermonters to learn more about this Garden of Eden that a Connecticut firm advertised in 1852 for one hundred agents in that state alone to sell its new book, *The Great West*, "filled with interesting historical and descriptive matter relating to the West, California, Oregon, and Minnesota inclusive."[29]

Those who had gone into the new land spoke not only of the economic advantages of the region, but also of its spiritual needs. Former New England pastors wrote home to urge good Christians to move out and settle in their vicinities and thus help save the West for God.[30] There was no doubt that good Christians were responding, though more, perhaps, to the economic urge than the spiritual. The churches all over the hill country lost members by Western emigration, some of them to the point of practical extinction.[31]

The uneasiness and discontent prevalent in Vermont were remarked by a local minister before the Congregational Convention at Bennington in 1857. The consequences of this restlessness were, he felt, pervading the entire countryside, and were affecting not only the dissatisfied, but those who had no desire to move.

[27] *Vermont Chronicle*, June 21, 1853; May 2, Dec. 5, 1854.

[28] *Ibid.*, Nov. 4, 1856.

[29] *Vermont Watchman*, Aug. 26, 1852.

[30] *Vermont Chronicle*, Dec. 13, 1853; Dec. 5, 1854; Sept. 11, 1855; Jan. 12, 1858.

[31] *Ibid.*, March 20, 1853. In some cases the minister himself led the migration. Lois K. Mathews describes the members of the Vermontville, Mich., colony, "who purchased land of the government under a written compact, drawn up at East Poultney, Vermont, upon the advice and under the direction of their minister, Rev. Sylvester Cochrane, who alone of all the band had ever seen the land upon which it was proposed to settle."—Mathews, *The Expansion of New England*, p. 229.

Men . . . who intend as soon as possible to emigrate [he observed] will not . . . take much interest in improving their lands, fences, or buildings, and as for the works of public utility, such as better roads, bridges and schoolhouses[32] and churches, they are ready to say, "Of what use will these things be to us? We are expecting to remove and must provide for ourselves elsewhere."[33]

During the mid-fifties, the slavery controversy also furthered the movement of New Englanders into the trans-Missouri West. Zeal for aiding Free Soil emigrants to Kansas, first expressed in the charter of the Massachusetts Emigrant Aid Company in April, 1854,[34] soon spread into northern New England. For the first year the sympathizers there joined the Massachusetts bands or struck out on their own initiative, but by 1855 the hill country had its own Kansas Emigration Societies and was sending out its own companies of volunteers to "fight for freedom." In that year, for instance, one Vermont group went out from Montpelier, and another from Randolph.[35] Not only was money raised by private subscription, but the state legislature also passed an act to help the Kansas pioneers.[36] Behind the desire to "win Kansas for freedom," however, was the fundamental appeal of all the West—the opportunity to acquire cheap, rich land.

The tendency for the emigrants to move into the more distant West may be seen in a comparison of the census returns for 1850 and 1860. For instance, while the number of Vermonters in New York declined during this period by almost 11 percent, in Illinois they increased 60 percent and in Wisconsin

[32] In 1858 the town of Weathersfield, Vt., in the Windsor region, spent more for the support of its poor farm than it did for its schools. For the schools there was expended during the year $773.18; for the support of the poor farm, $916.25—Weathersfield, Vermont, *Town Report* (1858), p. 3.

[33] McKeen, *The Claims of Vermont*, p. 3.

[34] Channing, *History of the United States*, VI, 160.

[35] *Burlington Sentinel*, March 29, April 26, 1855; *Vermont Chronicle*, March 20, 1855.

[36] Crockett, *History of Vermont*, III, 445.

88 percent. Iowa had almost 6,000 more Vermonters in the latter year than in the former. The increase for Minnesota was approximately 4,000; for Missouri, 1,200; for Kansas, 900; for Nebraska, 300; for Colorado, 400; for Utah, 100; for Oregon and Washington, 300; and for California, 2,225.[37]

This movement into the farmer West was stimulated by the recently chartered railroad companies, which sought to develop the territory in and about their land grants. A series of intriguing advertisements sponsored by the railroads appeared in New England papers. Thus, in 1867, a notice of the Central Branch of the Union Pacific was displayed in the advertising section of the *New England Farmer*. This offered "1,000,000 acres of land for sale at $3 and upwards per acre and not a foot of waste lands; . . . on purchase, no portion of the principal required; . . . free from taxation for six years." The railroad added solicitously, "The attention of those arranging for Emigration to the West and settlement in Colonies is especially invited to the advantages which are offered here." The soil was described as of "INEXHAUSTIBLE DEPTH" and "UNSURPASSED FERTILITY."[38]

While the number of emigrants from northern New England into the newer western states and territories mounted steadily through the sixties, the movement of native Westerners eastward was practically negligible. The account of New Hampshire with certain other states in regard to population, for example, shows that while, in 1860, 2,365 natives of the Granite State were residing in Minnesota, the latter had sent only 22 of her children to New Hampshire. By 1870 the net loss of

[37] The number of Vermonters in New York declined in these years from 52,599 to 46,990; in Illinois it increased from 11,381 to 18,253, and in Wisconsin from 10,157 to 19,184. The increase in exact numbers for Iowa was 5,936; for Minnesota, 4,108; for Missouri, 1,205; for Kansas, 902; for Nebraska, 327; for Colorado, 375; for Utah, 94; for Oregon and Washington, 313.—Stilwell, Migration from Vermont, p. 399. See Appendix 2, Table II.

[38] *New England Farmer*, New Series, Vol. I (1867), advertising section which follows p. 356.

the eastern state had increased to 3,216, while the gain in Iowa had risen 53 percent, from 3,269 in 1860 to approximately 5,000 in 1870. On the other hand, the number of New Hampshire natives in New York, which had become well settled and was ceasing to attract immigrants, dropped 36 percent in this decade, from 10,452 to 6,712.[39]

By 1870, the hill country was beginning to feel seriously the drain of its young blood. In Vermont alone, according to the census of that year, the loss amounted to 200,000. The youth of the state had taken to heart the words attributed to Stephen A. Douglas,[40] "Vermont is a good State to be born in and a good State to go away from."[41] The first report of her Board of Agriculture complained in 1872, "No country can stand the continuous drain of young men and capital that has been going on in Vermont for the past few years. . . . Who can value the educated minds, the productive power and enterprise that are lost by the removal of our young men?"[42]

In addition to drawing from the New England hill country much of its best youth, during these four mid-century decades the Midwest was also beginning to become an increasingly formidable rival in the production of agricultural staples. As canal and railroad transportation improved and as the West poured into New England from its rich, virgin soil a growing flood of produce,[43] the hill-country farmers found that the prices they could secure for the old, reliable farm products were steadily falling. Although the price of corn, rye, and flour declined little between 1820 and 1845, in the latter year pork and beef commanded scarcely more than half as much as in 1820.[44] The

[39] *The Statistics and Gazetteer of New Hampshire*, p. 451.
[40] Born in Brandon, Vermont.
[41] Vermont Board of Agriculture report for 1878, p. 142.
[42] Jamison, "Vermont as a Home," p. 556.
[43] Turner, "New England, 1830-1850," pp. 148-59.
[44] See prices for farm products in Massachusetts, the main market for northern New England, given in *Haywood's Massachusetts Gazetteer, 1849* (Boston, 1850), as quoted by H. B. Hall, A Description of Rural Life, p. 129.

comparatively high cost of feeding livestock was forcing the hill country out of this line of production. While in the West land could be bought from the government at $1.25 an acre, in New England it sold as high as $30 an acre.[45] When in the fifties it was costing the New England farmer from 40 to 50 cents to produce a bushel of corn, in Illinois it could be raised for from 12 to 15 cents. By the sixties, corn, which was demanding 75 cents a bushel in New England, could be bought in the West to fatten livestock for 10 cents a bushel.[46]

Cheaper production in the West, combined with attacks of the wheat midge, rust, and the Hessian fly, brought about a decrease in the acreage planted to wheat in the northern New England states during these decades.[47] As early as 1843 the West was referred to as "the granary of New England,"[48] but it was not until the last quarter of the century, when the development of the grain lands on the Great Plains made it unprofitable to raise wheat even for home consumption, that the hill country practically ceased to grow this product.[49]

### The City

Although the West was the predominant attraction for northern New England up to the seventies, the urban regions to the south were enticing many of its citizens. Instances occurred as early as the thirties when whole sections of the population of a hill town moved in a body to some growing industrial locality in southern New England. In 1835, for example, the hill town of Barnard, in central Vermont, lost nearly two hundred of its eighteen hundred people when they migrated to

[45] Bidwell and Falconer, *History of Agriculture in the Northern United States to 1860*, p. 348.

[46] *Ibid.*, pp. 348-49.

[47] *Ibid.*, p. 347. See Appendix 3, Table I, for figures on the decline in production of agricultural staples during these years.

[48] Haskins, *New England and the West*, p. 6.

[49] See below, pp. 97-98.

industrial Massachusetts.[50] In 1837, Harriet Martineau noted this movement from the northern hills and observed, "The farmers of Vermont . . . have but little property besides their land. Their daughters and even their sons resort to domestic service in Boston for a living."[51]

The girls on the hill-country farm were attracted to the city in large numbers at an earlier period than the boys. The farmers' daughters could not go west and develop land into a prosperous farm, as their brothers were doing, and life on the home place offered little future for women except marriage. As the standard of living rose throughout the country, the rural girl also longed for better clothes and money of her own to do with as she pleased. The city seemed to her to be the place to go.[52] There she could find employment, not only in domestic service, but also in the increasing number of factories.

The first factory town which drew girls in large numbers from northern New England was Lowell, Massachusetts, where the growing textile mills offered a source of lucrative employment. Statistics from a book published in 1845, called *Lowell as It Was and as It Is*, show that a majority, and in many cases as large a proportion as 75 percent, of the girls working in the various city textile plants came from northern New England. The factory employing the most girls, 199 in all, had 71 girls from New Hampshire, 39 from Maine, 38 from Vermont, 18 from Massachusetts, 5 from Canada, and 20 from Ireland. A mill hiring 183 girls had 55 from New Hampshire, 52 from Vermont, 45 from Maine, 21 from Massachusetts, 6 from Ireland, and 3 from Canada.[53]

[50] W. W. Parker, Rural Vermont and Its Transplantation in the Rural Life of the Western Reserve, p. 27.

[51] Martineau, *Society in America*, I, 294.

[52] Frederick P. Wells and Edward Miller, *History of Ryegate, Vermont*, pp. 193-94; Harriet Rice, "The Young Women and the Farm," p. 195.

[53] Miles, *Lowell as It Was and as It Is*, pp. 165-93. The study of the personnel of the other factories reveals another textile mill employing 186 girls: 54 from New Hampshire, 37 from Maine, 29 from Massachusetts, 25 from Vermont, 9

The daughters of the hill country did not all go to Lowell, however. As reports sifted through to the remote hillsides of the steady wages to be earned in the shoe shops and in the cotton and woolen mills of southern New England, the farm girls traveled by stage and railroad down the Connecticut River valley to the factory towns of western New England, as well as down the Merrimack River valley to those of eastern New England. In 1845, the year in which the book on Lowell was published, the editor of the *Vermont Chronicle,* of Windsor in the Connecticut valley, observed, "Within a few weeks, the daughters of Vermont have passed by our doors by the score at a time, to be employed in factory work in another state."[54] Lowell, however, continued to be one of the chief attractions to the New England hill-country girl. By the latter part of 1845, it was reported that there were 1,200 girls from Vermont alone working in the mills of that city.[55]

Not only were many thousands of the inhabitants of the hill country moving to the mill towns of southern New England, but large numbers were leaving their farms to work in the factories which were springing up in their own territory. By 1850 the people employed in non-agicultural occupations had mounted to impressive totals in the three northern New England states as well as in the three southern. Only in Vermont was a decided majority of the men gainfully employed (48,327 out of a total of 92,326) dependent upon agriculture for a livelihood. Seventeen thousand and sixty-three, or about one-third the number engaged in farming pursuits, were employed in "com-

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from Canada, and 22 from Ireland. Another, with 195 girls, had 71 from New Hampshire, 57 from Maine, 32 from Massachusetts, 17 from Vermont, 3 from Canada, and 11 from Ireland. Still another, hiring 177 girls, had 58 from New Hampshire, 37 from Maine, 27 from Vermont, 18 from Massachusetts, 10 from Canada, and 24 from Ireland. The seventh mill, employing 156 girls, had 53 from New Hampshire, 35 from Maine, 29 from Vermont, 16 from Massachusetts, 6 from Canada, and 14 from Ireland.—*Ibid.*, pp. 165-93.

[54] *Vermont Chronicle*, Oct. 29, 1845.

[55] Miles, *Lowell as It Was and as It Is*, p. 193.

merce, trade, manufacturing, the mechanic arts, or in mining."[56] By mid-century, 17,646 Vermonters had migrated to Massachusetts, practically all of them to seek a living in some activity other than farming. Indeed, more Vermonters were to be found at this time in Massachusetts than in any other state of the Union except New York.[57] By the same year, Vermonters to the number of 11,266 had gone to New Hampshire, most of them to the growing factory towns along the Merrimack.[58] In the latter state, out of a total of 94,564 working men, only 47,440, or barely a majority, were engaged in agriculture, while 27,905, or 63 percent more than the number so employed in Vermont, were reported occupied in "commerce, trade, manufacturing, the mechanic arts, or in mining."[59] In Maine less than a majority, 77,082 out of 162,711, were in farming, while 38,237 were in the other classification and 15,649 were listed as employed at sea.[60]

Although many mills were springing up in southern Maine, it was in New Hampshire that the manufacturing industry grew most rapidly during this period. From 1840 to 1870 the number of pairs of boots and shoes made in the state rose from 500,000 to 8,000,000, the value of the cotton goods produced increased from $4,000,000 to $30,000,000, of woolen goods from $800,000 to $9,000,000, while the total value of the goods manufactured there mounted from $13,000,000 to $95,000,000.[61]

Because of the loss of large numbers of the farming population by their departure westward, and the attraction of many others to the near-by factories, the number of men engaged in

[56] "Employments of Free Male Population of the United States over Fifteen Years of Age," Report of the Seventh Census, p. lxxx.

[57] Stilwell, Migration from Vermont, p. 199. By 1860 the number of Vermonters in Massachusetts had risen to 18,652.

[58] *Ibid.* By 1860 the number had increased to 11,950.

[59] Report of the Seventh Census, p. lxxx.

[60] *Ibid.*

[61] Goldthwait, "A Town That Has Gone Downhill," p. 538.

agriculuture in New Hampshire dropped 40 percent between 1840 and 1870, from 78,000 to 46,570, while the total for persons engaged in manufacturing rose 288 percent, from 12,000 to 46,550—and manufacturing was but one of several occupations other than agriculture listed separately in the census of 1870.[62] In 1855 the editor of a state gazetteer had declared that agriculture was the primary pursuit of the people of New Hampshire,[63] but by the end of this period it led only by the narrowest of margins.

The movement of so many of the inhabitants of the hill country into the neighboring urban territory troubled the farming periodicals of the day deeply. They deplored the resulting decline of the rural population, and spent many columns demonstrating the disadvantages of concentration in industrial areas.

> If it be decided that farming is not profitable [queried the *New England Farmer* in 1852], what is to be done? . . . Shall we engage in manufactures and, collecting in large towns like Manchester and Birmingham in England, . . . put our labor in equal competition with the pauper labor of Europe . . . and starve when the wheel of the Factory stops?[64]

Vermont, the region least touched by industry, viewed the city with particular suspicion.

> All great cities [thundered a speaker before a church convention in 1857], are cursed with immense accumulations of ignorance and error, vice and crime and misery; . . . their theatres and gambling houses, drunkeries and brothels are well patronized; . . . far better is it for our youth to breathe the pure air and enjoy the salutary moral influences of their native State, than to be brought into contact with such masses of putrefaction.[65]

[62] *Ibid.*

[63] *New Hampshire as It Is*, p. 460.

[64] *New England Farmer*, IV (February, 1852), 79.

[65] McKeen, *The Claims of Vermont*, p. 10. The Reverend Mr. McKeen was speaking at this time before the Congregational Church Convention held at Bennington, Vermont.

The crusaders directed especial attention to the young people, for they had proved most susceptible to the call of the city. The girls bore the greater share of attention. At every opportunity the *New England Farmer* urged them to stay on the farm. For instance, in answer to a letter written March 9, 1857, by "A Farmer's Daughter," explaining that she was a member of a large family, and that "the respected head of our family has so many calls for his surplus funds that there is next to nothing left for the girls," and asking whether she should stay at home and be content with the limited means afforded her to seek employment outside,[66] the June issue of the periodical stated emphatically, though somewhat unhelpfully, in view of the scarcity of opportunity for such work, that she should remain at home and attempt to find some sewing or teaching to eke out her scanty resources.[67]

It was true that the young women on the farms were obliged to ask their fathers for everything they needed. They left for the cities, pointed out the report of the Maine Board of Agriculture in 1867, because there they could "earn three, four, five or six dollars per week . . . while they could earn little or no ready money at home."[68]

The boys also received their share of advice. The *New England Farmer* felt it necessary to warn them, too, of the disadvantages they must undergo if they moved to the city. In an editorial entitled "Stick to the Farm, Young Man," published in 1854, it pictured the plight of the farmer's son who had gone cityward and cautioned any others who contemplated such action.

> You are tempted to exchange the hard work of the farm to become a clerk in a city shop. . . . You, by birth and education, intended for the upright, independent, manly citizen, to call no man master and to be no man's servant, would become at first the errand boy of the shop,

[66] *New England Farmer*, IX (May, 1857), 224.
[67] *New England Farmer*, IX (June, 1857), 256.
[68] Maine Board of Agriculture report for 1867, p. 44.

to fetch and carry like a spaniel; then the salesman, . . . to bow and smile and cringe and flatter, to attend upon the wishes of every painted and padded form of humanity; . . . and finally, . . . a trader, . . . compelled to look anxiously at the prices current of cotton and railroad stocks in order to learn each morning whether you are bankrupt or not; and in the end to . . . sigh for your native hills.[69]

Amongst all these words of advice came an occasional refreshing thrust against the conditions which were causing so many to leave the farm. A pamphlet called *Farm Life in New England* declared in 1858 that the real reason for the deterioration of agriculture in the region was the "fact that the farmer's life and the farmer's home generally are unloved things." The boys would not stay "tied to a home which has no higher life than that of a work shop or a boarding house," while the girls, asserted the author, "contemn the calling of their father and will . . . marry a mechanic in preference to a farmer. They know that marrying a farmer is very serious business. They remember their worn-out mothers."[70]

## The Civil War

The Civil War, although not as widespread or of such long duration as the two outside influences already described, was also an important factor in the drain of youth from the hill country farms. "A large number of our young men," lamented the *Farmers' Cabinet* in 1864, "have gone forth—the dearly

[69] *New England Farmer*, VI (June, 1854), 286.

Again, in the sixties, the history of a New Hampshire town told the local boys, "The poor city clerk, who puts on better cloth and assumes more attractive airs, to the confounding of country boys, has to labor more hours and with more degrading obsequiousness than the young man who tills the soil, while his chances of competence are by no means flattering."—Cogswell, *History of New Boston, New Hampshire*, p. 456.

[70] Holland, *Farm Life in New England*, p. 337. In an address before the Connecticut River Agricultural Society, in 1853, the speaker stated, "Farming is now unpopular with the young men . . . it is so also with the young women. They have come to associate the name of farmer with ignorance, with stupidity, with clownishness."—Comings, *Address before the Connecticut River Valley Agricultural Society*, p. 11.

beloved, the fondly cherished. Alas! The number is fearfully large who have gone forth never to return."[71]

Every state in northern New England felt the depletion. In addition to those lost in battle, hundreds came back suffering from the effects of grievous wounds, while many more, once they had come into contact with the outside world, no longer cared to return to the isolated life of the hill farm, and drifted to the village or city, or to the West where they took advantage of the act of Congress making the period served in the army count upon the time required to secure a quarter section for a homestead. Vermont sent into the Union army 34,000 young men,[72] and not one-half of those who served in the war ever came back to the state as permanent residents.[73] In Maine, the same situation prevailed, although in a lesser degree. "The men got the microbe of roving in their bones," noted one report of the Maine Board of Agriculture,[74] and a decade after the conflict another report concluded that the War "took so much blood and treasure that a check was given to the farming industry."[75] New Hampshire experienced similar losses. The history of a hill town in central New Hampshire pointed out that in common with other New England towns, Hillsborough had sent every other of her able-bodied men into the field of action and had suffered accordingly. "The war," declared this account, "marked the beginning of the decline of rural life."[76]

The departure of increasing numbers of men as the war progressed caused a decided scarcity of farm help, and this

[71] *Farmers' Cabinet*, Jan. 28, 1864, p. 2.

[72] Vermont Board of Agriculture report for 1889, p. 10; A. F. Sanborn, "The Future of Rural New England," p. 78. In proportion to population, Vermont lost more men killed in battle than any other state.—Clark, "The State of Vermont," p. 705.

[73] Vermont Board of Agriculture report for 1889, p. 10.

[74] Maine Board of Agriculture report for 1899 (Report of the State Promological Society, p. 10).

[75] Maine Board of Agriculture report for 1873, p. 271.

[76] Browne, *The History of Hillsborough, New Hampshire, 1735-1921*, p. 330.

hampered production,[77] but the farmer frequently had the help of his family in his work, and under the war-time stimulus of prices and before post-war depression set it, farming was admittedly profitable.[78] At the same time, however, taxes were mounting, for many a hill-country town, in its eagerness to aid the Union, was incurring a debt which often proved a serious burden to local finances in later years.[79]

The period 1830-70 in the rural life of the New England hills saw the transition from self-sufficient to commercial agriculture, from a household to a factory industry; it witnessed an increasing differentiation of occupations and of customs between the rural and the urban people. It beheld the flow of population up on to the more remote hillsides until the development of transportation facilities with the West and the increasingly advantageous economic opportunities in the cities of southern New England began to draw them away. It saw an occasional farm, here and there, become unoccupied. The years between 1870 and 1900 were to see many more fall into that condition. Before we discuss the decline of rural New England in the last quarter of the nineteenth century, and before we investigate more carefully the causes for such a decline, however, we must pause for a moment to consider a special phase of agriculture which was so significant in the life of the hill country that it warrants close scrutiny.

[77] Batchelder, "The Agriculture of New Hampshire," p. 120.

[78] Phelps, "Is There a Decadence of New England Agriculture?" p. 375.

[79] For instance, on June 1, 1861, a special town meeting was held in Amherst, a hill town in southern New Hampshire, at which, reported the *Farmers' Cabinet*, "excellent feeling prevailed. The town voted . . . to borrow a sum not exceeding $2,000 to be appropriated to meet the expenses of the soldiers and their families. . . . There was one dissenting vote."—*Farmers' Cabinet*, June 7, 1861, p. 2. This village, in Hillsborough County, reached its maximum population in 1830, and, with two exceptions, declined at every census from 1830 to 1930.

# IV

## THE SHEEP INDUSTRY

*You've noticed a large number of big barns in this vicinity, haven't you? Well, they were built out of sheep money.*[1]

THE hill country of northern New England was peculiarly adapted to the raising of sheep; its rock-strewn fields and pastures could produce wool better than corn and wheat. There is a saying about the Granite State that New Hampshire raised sheep because only sheep had noses small enough to reach down between the rocks for the wisps of grass,[2] while the ancient joke in Vermont that sheep's noses were sharpened by nature so that they could reach in between the rocks to graze for food is still not without significance, both as to the character of the country and the adaptation of sheep to it.[3]

### The Sheep Mania

The importance of sheep growing in northern New England began with the introduction from Spain of the famous Merino, in the second decade of the nineteenth century. Before this time, the Spanish government had guarded the breed most jealously. The invasion of Spain by Bonaparte, however, not

[1] Remark made to the writer in the summer of 1929, when he was making a field study of the region around Windsor, Vt., by Judge Glenn Howland of Windsor.

[2] Bevan and Heaton, "Why Go West, Young Man?" p. 7.

[3] J. Russell Smith, *North America*, p. 154.

According to a contemporary account of Vermont published in 1831, it was noted that "The soil is such and the seasons are so uncertain for the perfection of crops of grain, that grazing is the most sure and profitable branch of agriculture which the farmer of Vermont can carry on with success."—Nathan Hoskins, *A History of the State of Vermont*, p. 268.

only involved France and Spain in war, but let loose factional strife in Spain: Bonaparte seized the estates and the flocks of the powerful nobles who did not side with him, while the Spanish Junta confiscated the property of those who did not support the national cause. It thus became possible to purchase and to export some of the finest Merino sheep.[4]

In 1809 William Jarvis, American consul at Lisbon, convinced that the extended introduction of this fine-wooled breed into the United States would greatly increase the prosperity of the country, received permission to export from Spain two hundred rams of the Escurial royal flock. Sent in a number of shiploads to Boston, many of them sold for as much as $1,000. Returning to his home in Boston in 1810, Jarvis moved to Weathersfield, Vermont, the next spring, taking with him all his animals, which, according to a contemporary account, included "selected Merinos, about 400, Dutch cattle, Portuguese swine, goats, donkeys, etc., a Spanish shepherd and a noble shepherd dog."[5] Jarvis lived in Weathersfield until 1859, when he died at the age of eighty-nine years. He had bred sheep in that town for forty-eight years.[6]

The industry, introduced at the moment when the advent of improved machinery and the growth of mills in southern New England were creating a demand for wool, prospered from the start.[7] By 1830, the northern New England farmers were realizing large returns from the wool they raised. In that year, for instance, the total clip of Vermont alone sold for about $1,200,000.[8] The demand for wool increased steadily, with a

[4] *Special Report on the History and Present Condition of the Sheep Industry of the United States*, p. 172.

[5] *Ibid.*, p. 173. The town to which he moved is in the Windsor, Vt., region.

[6] Cutts, *The Life and Times of William Jarvis, passim.*

[7] Goldthwait, "A Town That Has Gone Downhill," p. 546.

[8] J. L. Bishop, *History of American Manufactures*, II, 360, quoted in the *Special Report on the History and Present Condition of the Sheep Industry of the United States*, pp. 317-18.

consequent rise in the price it commanded. According to a *Statistical View* of the industry published in 1837, the price of wool mounted, with some fluctuations, from 36 cents a pound in 1827 to 57 cents in 1835.[9]

With such a favorable market, increasing numbers of farmers entered in the production of this commodity. The *Maine Farmer* in 1833 urged the husbandmen of that state to raise more sheep, particularly "upon lands that must otherwise be nearly, if not wholly, useless." The journal admitted that cattle would "do tolerably well" on such land, but "not as well as sheep," and added convincingly, "If the first afford us food, the latter give both food and shelter."[10] In the late thirties, the *Cheshire Farmer* remarked upon the rapid growth of the sheep industry in New Hampshire,[11] and in many Vermont localities the production of other staples was by that time becoming only a secondary consideration. Harriet Martineau observed in 1837 that while Vermont used to furnish Boston with fowls, butter, and eggs, the supply had nearly ceased, "partly owing to an increased attention to the growth of wool there for the manufactures."[12]

The effect of the growing interest in wool production was felt most keenly, however, in cattle raising. Between 1832 and 1837 the number of cows in Vermont decreased by 13,000, the "two-

[9] *A Statistical View of the Number of Sheep*, etc., p. 122. The price paid for wool in northern New England averaged 40½ cents a pound in 1830, 58 cents in 1831, 41 cents in 1832, 52½ cents in 1833, 50 cents in 1834, 57 cents in 1835, and 50 cents in 1836. To gather material for their statistics, the compilers visited even "the remote sections" of northern New England, and in addition "upwards of two thousand circulars" were sent to officials in various towns to "procure a correct knowledge of the facts solicited [p. 122]." One of the compilers, a dealer who had, during the previous decade, bought a million and a half pounds of wool in the three northern New England states, for use in Massachusetts factories, declared that in the light of his experience, the raising of sheep was "surely a profitable business [p. 122]."

[10] *Maine Farmer*, I (Sept. 7, 1833), 266.

[11] *Cheshire Farmer*, II (June, 1839), 99.

[12] Martineau, *Society in America*, I, 294.

year old cattle" by 15,000, and the number of yokes of oxen by 13,000. The increase in the number of sheep in the state more than compensated for this decline, however.[13]

The heyday of sheep raising on the farms of the New England hill country came in the late thirties and early forties. During these years many of the farmers of the region became obsessed with what was termed "the sheep mania." Forced by the lessening self-sufficiency of the hill farms to find some source of cash income, the husbandmen in many localities came to depend upon sheep to the practical exclusion of other agricultural activities.[14]

An examination of the little booklet entitled *A Statistical View . . .*,[15] which gives the distribution of sheep in the different townships of Vermont and New Hampshire in 1836, reveals the importance of the industry in the latter thirties. The former state was literally dotted with them. Except for a few remote districts in the Green Mountain range and in the frontier section of northeastern Vermont, every town had more than 1,000 sheep, while some of them possessed over 5,000 and a few in the Connecticut Valley and the Champlain Valley had been transformed into vast sheep runs where the numbers totaled more than 10,000 per town. To a lesser degree, a similar situaation prevailed in New Hampshire. The industry was most important in the Connecticut Valley region, and 3 towns, Walpole, Lebanon, and Hanover, counted over 10,000 sheep apiece, while 20 possessed from 5,000 to 10,000 each, and 102 reported from 1,000 to 5,000 each.

During the years of the boom, the desire to increase their pasturage area frequently led the prosperous farmers to buy

[13] Special Report of the Vermont Legislature, quoted in the *Cheshire Farmer*, II (June, 1839), 99.

[14] The history of one town in north central New Hampshire states that from 1830 to 1860 the raising of sheep was one of the chief sources of income for the farmers of the locality. In 1844, 1,265 sheep were taxed in this town; in 1902, only 119.—Musgrove, *History of the Town of Bristol, New Hampshire*, I, 443.

[15] See above, p. 77, note 9.

up neighboring farms and turn them into sheep runs. Sheep thus sometimes tended to crowd out human population. Instances of this occurred in the earlier-settled portions of northern New England even before the thirties. Thus, the Vermonter mentioned above[16] who had moved in 1826 with father from Westminster in southeastern Vermont to the frontier in the northern part of the state, recalled that the latter had sold his farm to a well-to-do sheep raiser. "Men counted their flocks by thousands," this man recollected, "and as they grew more and more rich in money and sheep, they bought farm after farm adjoining their own and turned them into pasturage."[17]

There were countless cases in which the avid desire to increase the acreage for sheep pasturage tended to push off the near-by farms any family which might have any inclination to move West. "Beware of the 'western fever' and above all, sell not your farms to your rich neighbors for sheep pastures," warned the scribe, "Green Mountaineer," in the Windsor *Vermont Chronicle* on October 17, 1834.[18]

Although the Panic of 1837 brought on a reduction in the price of wool, there was still a sufficient margin of profit in the business to cause a continued increase in the number of sheep, and between 1836 and 1840 the flocks of the northern New England farmers grew rapidly, the industry reaching its climax in the early forties.[19] In Maine, the number mounted from 622,000 in 1836 to 649,000 in 1840, while in New Hampshire it rose from 465,000 to 617,000 in the same period, and in Vermont the 1836 figure of 1,099,011 ascended to 1,681,000 in 1840.[20] By the latter year Maine, as well as Pennsylvania, Vir-

[16] See above, p. 25.

[17] Thrasher, "A New England Emigration," pp. 373. Westminster is less than twenty miles south of Weathersfield, where Jarvis settled.

[18] *Vermont Chronicle*, Oct. 17, 1834. See also Swift, *History of Middlebury and Addison County*, p. 95; Joslin *et al.*, *History of the Town of Poultney, Vermont*, p. 81.

[19] Connor, "A Brief History of the Sheep Industry," pp. 110-11.

[20] *A Statistical View of the Number of Sheep*, etc., quoted in the *Farmers' Monthly Visitor*, May 15, 1839.

ginia, Kentucky, and Connecticut, could count one sheep to each inhabitant, and Ohio had a fraction more than one. New Hampshire, as well as New York, had two and a quarter, while Vermont reported five and three-quarters to each person. At that time, New Hampshire possessed 65 sheep to the square mile; New York, 112; Vermont, 165; while Addison County in the latter state, with 373 sheep to the square mile,[21] raised a greater number of sheep and produced more wool, in proportion either to territory or population, than any other county in the United States.[22]

In these years the mills of southern New England continued able and willing to take all the wool that the hill-country shepherd farmers could produce,[23] and the region itself contained many little local woolen mills. In 1836 there were twelve of them in Maine, thirty-one in New Hampshire, and thirty-three in Vermont, producing cassimeres, satinets, blankets, and broadcloth.[24] The sheep industry seemed a permanent part of the agricultural economy of northern New England. The raising and keeping of sheep, observed the governor of New Hampshire in 1837, "is good business for the farmer,"[25] and the *Cheshire Farmer* amplified this statement when it pointed out in 1840, "A flock of good ewes with proper management will hardly fail of doubling their numbers within the year and if to the sale of wool, the value of the lambs be added, it will be seen after deducting the expense of keeping, that a handsome profit remains."[26]

[21] *Special Report on the History and Present Condition of the Sheep Industry of the United States*, p. 239.

[22] Speech of Silas H. Jenison, Governor of Vermont, before the Addison County Agricultural Society, Middlebury, Vt., Oct. 1, 1844, quoted in Swift, *History of Middlebury and Addison County*, pp. 96-97.

[23] Connor, "A Brief History of the Sheep Industry," pp. 110-11.

[24] *A Statistical View of the Number of Sheep*, etc., pp. 109 *et seq.* See also Wilson, "The Roads of Windsor," p. 385, in regard to the small woolen establishments in the Windsor, Vt., area at this time.

[25] Hill, *Address before the Merrimack County Agricultural Society*, p. 7.

[26] *Cheshire Farmer*, II (Feb., 1840), 156.

By the early forties, large areas in the hill country had been transformed into huge sheep runs, and the well-being of many a locality hinged upon the price of wool. So firmly had the industry become entrenched in Vermont, for instance, that the governor noted in his message in 1842, "Our citizens have become so dependent upon the growing of wool that this article may be said to be the staple of the state."[27]

## The Decline of Sheep Raising

"Careful management will always make sure the success of the fine wool growers upon the granite hills of New Hampshire," prophesied the *Farmers' Monthly Visitor* in 1845,[28] as it contemplated the flocks filling the pasture of almost every farm. But at that very time sheep raising in the northern New England hills had already touched its zenith, and the size and number of flocks in the region dropped steadily thereafter. The 1,618,819 sheep which Vermont boasted in 1840 had declined 64 percent, to 580,347, by 1870, while the number in New Hampshire fell 59 percent, from 617,390 to 248,760, in the same period. In Maine, where new territory was still being settled, the decrease was less pronounced, from 649,264 in 1840 to 434,666 in 1870, a drop of 33 percent.[29]

Two factors influenced this decline. The first was the lowering of the protective tariff on wool in the early forties, with the consequent slump in the price; the second and more important was the gradual increase of wool production in the West, which,

[27] *Vermont Watchman*, Oct. 21, 1842.

[28] *Farmers' Monthly Visitor*, VII (Oct. 31, 1845), 150.

[29] *Special Report on the History and Present Condition of the Sheep Industry of the United States*, pp. 329 *et seq.*

NUMBER OF SHEEP IN THE NEW ENGLAND HILL COUNTRY, 1840-70

| | Vermont | New Hampshire | Maine |
|---|---|---|---|
| 1840 | 1,681,819 | 617,390 | 649,264 |
| 1850 | 1,014,122 | 384,756 | 451,577 |
| 1860 | 752,201 | 310,534 | 452,472 |
| 1870 | 580,347 | 248,760 | 434,666 |

with better transportation facilities, enlarged the supply of wool for eastern markets and depressed the price.

The wool industry of northern New England was closely linked to the protective tariff. When the tariff of 1841 lowered the wool rates there was a decrease in prices and a consequent flurry of protest from the hill-country sheep men.[30] The situation was temporarily eased by the higher rates of the tariff of 1842, but when, in 1846, all protection was removed from the higher grades of wool, the producers found themselves more severely pressed than before.[31]

It was the sharpening competition resulting from the increase of Western wool production, however, which wrought the most widespread havoc upon the northern New England sheep industry, and no tariff walls could restrain that. Until the forties the West produced wool primarly for home needs, and but little of the clip appeared in the eastern markets. Although the Erie Canal was opened in 1825, only a small amount came over that route during the following fifteen years. Most of the sheep in the West at that time were in the Ohio Valley, and a long haul was necessary to deliver the wool to lake carriers. Following the opening of the Ohio and Pennsylvania canal systems,[32] however, transportation facilities were considerably improved, and by the forties the Middle West began to send increasing supplies of wool via the Erie Canal. Twenty-eight times as much wool was carried on that waterway in 1845 as in 1840.[33]

[30] *Vermont Watchman*, Aug. 1, 1842; Senator Jacob Collamer, *Congressional Globe*. 34th Congress, 3d Session, Appendix, p. 337, quoted by Stilwell, Migration from Vermont, p. 187; Seward, *History of the Town of Sullivan, New Hampshire*, pp. 561 *et seq.*

[31] Stilwell, Migration from Vermont, p. 187.

[32] 1832-34.

[33] In 1845, about 100,000 pounds were carried; in 1840, a little less than 3,000 pounds.—Connor, "A Brief History of the Sheep Industry," p. 113. In the face of this growing influx, the *Farmers' Monthly Visitor* attempted to reassure the hill-country husbandmen by stating in 1846, "Certain it is that the advantages of sheep-raising in the West are not such as to alarm our Eastern shepherds."—*Farmers' Monthly Visitor*, VIII (Jan. 31, 1846). 9.

The development of the Western industry was favored by the relative ease with which wool could be transported, and also by the low cost of production as compared to the high cost in the East. Prior to 1860, the average expense per year to keep a sheep in the East was from $1.00 to $2.00 a head, in contrast to $1.00 down to $0.25 a head in the West.[34] With the fear that Western wool production would depress the price to a point where competition would be impossible, many northern New England farmers curtailed their flocks and a few disposed of them altogether. These disturbed conditions, in addition to the increased supply, caused the price of wool to fall in the late forties to a low of 25 cents a pound, one-half the sum procured in the middle thirties.[35] In some localities, attempts were made to save the day by establishing coöperative wool depots, forerunners of the coöperative creamery, but few of these were successful,[36] and the farmers continued to cut down on their flocks.[37] The census of 1850 reported a drop of one-third in the number of sheep in Vermont during the previous decade, and a decrease of almost one-half in New Hampshire. In Maine, the decline was about one-third.[38]

The "sheep mania" had driven the dairy industry into the background, but, as the production of wool became less profitable, the making of butter and cheese gradually assumed a position of more importance. Even in 1840 the keeping of milch cows was considered "a good business in the hill towns of New Hampshire," by the *Farmers' Monthly Visitor*, which declared that a farmer who kept a stock of twenty, thirty, or forty head of cattle had "frequently the road to wealth to be sure."[39] The

[34] Connor, "A Brief History of the Sheep Industry," p. 113.

[35] *Special Report on the History and Present Condition of the Sheep Industry of the United States*, p. 318.

[36] Stilwell, Migration from Vermont, p. 187.

[37] *Special Report on the History and Present Condition of the Sheep Industry of the United States*, p. 318.

[38] See above, p. 81, note 29.

[39] *Farmers' Monthly Visitor*, II (Jan. 31, 1840), 11.

returns in the dairy production tended to be more stable. By the latter forties wool had become subject to wide price fluctuations, the tendency being to concentrate on the lower levels. In the Boston market the annual changes in the price of wool in various grades were sometimes as much as 50 percent, while variations of 25 percent or more were a common occurrence. On the other hand, after 1840 the wholesale price of cheese rarely varied more than 25 percent; usually it was less, sometimes as low as 14 percent, while the changes in butter prices were generally smaller than in the case of cheese.[40] Moreover, the receipts per cow from the production of butter or cheese were between $30 and $60 a year, or from two to four times as much as could be secured from an equivalent number of sheep.[41] Thus it is not surprising that, by mid-century, the hill-country wool grower was coming to view dairying in an increasingly favorable light.

In the fifties, notwithstanding a rise in the price of wool over the low levels of the latter forties,[42] few northern New England farmers found the sheep industry yielding profitable returns. For instance, in 1851 in Windham County, in southeastern Vermont, it cost from $1.25 to $1.50 to keep a sheep for a year, while the average wool produced per head there was three pounds annually. Wool in that year sold for 40 cents a pound, which amounted to an income of only $1.20 per sheep—less than the cost of production.[43]

The situation reacted unfavorably upon sheep raising throughout the Northeast. Between 1850 and 1860 the number

[40] Connor, "A Brief History of the Sheep Industry," p. 125.

[41] *Ibid.* About eight wool sheep were considered equivalent to a cow in feed requirements.—*Ibid.*

[42] During the fifties, the average price was 42½ cents per pound.—*Special Report on the History and Present Condition of the Sheep Industry of the United States*, p. 320.

[43] Bidwell and Falconer, *History of Agriculture in the Northern United States to 1860*, p. 408.

of sheep decreased over 63 percent in the area comprising New York and the New England states,[44] although the decline in northern New England was not so heavy. Vermont lost about a quarter of her sheep, but New Hampshire's total was only a fifth smaller, while in Maine there was actually a slight gain during the decade.[45]

In the sixties the sheep industry of the New England hill country enjoyed a brief Indian summer. The Civil War brought boom times to the wool grower, for following the outbreak of hostilities more woolen cloth was manufactured, since by no means enough cotton could be smuggled from the South through the Federal lines. At the same time, much woolen material, including shoddy, was used in the Union army.[46] Local demand for wool rose rapidly as little woolen factories which had been quiescent for many years took on a new lease of life. "The Wilton Manufacturing Company (worsted yarn) is running full time, probably never more prosperous," reported the *Farmers' Cabinet* in 1864, and the local correspondent added cheerfully, "A new Woolen Mill has been built the past season. . . . It employs a large number of operatives. . . ."[47] As the demand for wool reached its zenith, the price advanced until the farmers were receiving a dollar or more a pound[48] for the precious stuff. Good apples from the northern New England hills were then selling at one dollar a barrel, so that a pound of wool was equal to a barrel of apples to the hill country husbandman.[49]

All of northern New England was affected by this new stimulus. In some localities in Vermont the number of sheep doubled,

[44] *Ibid.*
[45] See the 1850 and 1860 figures, p. 81, note 29.
[46] Connor, "A Brief History of the Sheep Industry," p. 129.
[47] *Farmers' Cabinet*, Jan. 7, 1864, p. 2.
[48] Connor, "A Brief History of the Sheep Industry," p. 129.
[49] Waugh, "New Farming for Old New England," p. 1.

while the annual report of the State Board of Agriculture of Maine strongly advised the farmers to raise more sheep because of the high price of wool,[50] and the local history of a hill town in New Hampshire remarked happily in 1864, "The sheep is once more heard bleating upon our hills, from which for a time she seemed banished, evidently to the detriment of the soil and the loss of the farmer."[51] For a while it looked as though wool production would displace the growing dairy industry, particularly in some regions especially favorable to sheep culture.[52] The town history just mentioned noted that "within the past few years" more attention had been given to wool than to making butter and cheese.[53]

The close of the war, however, brought a decline in the price of wool, for in a few years a plentiful supply of cotton was obtainable. In addition, the immense stock of woolens held by the government was thrown on the market, and the increasing importations of large amounts of raw wool from Australia and South America offered disastrous competition to American producers.[54]

These conditions caused an immediate reduction in the number of sheep in the hill country. Between 1867 and 1870, New Hampshire sheep were sold by the thousands for from thirty cents to a dollar and a half a head, and shipped to Boston for slaughter,[55] while in Vermont some growers were selling their high grade Merinos from seventy-five cents to a dollar apiece.[56] The Maine Board of Agriculture admitted in 1867 that the

[50] Maine Board of Agriculture report for 1863 (Abstract of Returns from the Agricultural Societies, p. 63).

[51] Cogswell, *History of New Boston, New Hampshire*, p. 457.

[52] Connor, "A Brief History of the Sheep Industry," p. 129.

[53] Cogswell, *History of New Boston, New Hampshire*, p. 457.

[54] Connor, "A Brief History of the Sheep Industry," p. 134. Between 1860 and 1870 the world production of wool increased by more than one-third, causing an oversupply by 1870.—*Ibid.*

[55] *Ibid.*

[56] *Special Report on the History and Present Condition of the Sheep Industry of the United States*, p. 318.

keeping of sheep for the growing of wool "cannot be profitably pursued for any length of time in Maine," and advised the farmers to turn their attention to other types of production,[57] while a Vermont town history published in 1869 harked back to the Golden Age of Civil War days when wool was a dollar a pound, and remarked mournfully, "Now, at forty cents per pound, there is little call for it."[58]

Northern New England again turned its attention to the production of butter and cheese. The Maine Board of Agriculture declared in 1869 that dairy farming offered the most liberal income of any special farming pursued in the state,[59] while the Vermont town history quoted above observed, "The dairy interest is increasing, most of our farmers keeping cows, as butter and cheese are the chief staples at present." A cheese factory had been established in this town in 1854, and by 1869, milk was brought to it from farms "more than two miles distant."[60]

A similar situation existed in New Hampshire. The town of Newport, for instance, produced in 1870, 10,880 quarts of milk for local sales, 67,979 pounds of butter, and 11,326 pounds of cheese, but only 8,140 pounds of wool were sheared there that year, while the cattle, which in the fifties and early sixties had been fewer in numbers than the sheep, at this time outnumbered the latter 1,843 to 1,372.[61]

Although the interval between 1860 and 1865 was marked by a decided increase in the number of sheep, the decline for the remainder of the decade was so pronounced that the 1870 census returns show a loss in each northern New England state during the sixties. The drop was largest in Vermont, one of 22 percent, from 752,201 to 580,347, and in New Hampshire the number fell 19 percent, from 310,534 to 248,760. In Maine,

[57] Maine Board of Agriculture report for 1867, p. 34.
[58] Hiland Paul, *History of Wells, Vermont*, p. 13.
[59] Maine Board of Agriculture report for 1869, p. 57.
[60] Hiland Paul, *History of Wells, Vermont*, p. 13.
[61] Wheeler, *History of Newport, New Hampshire, from 1766 to 1878*, p. 246.

however, the decrease was less than 5 percent, from 452,472 to 434,666.[62]

The steady decline in the number of sheep from 1840 to 1870, it should be noted, did not automatically cause a proportionate drop in wool production. Indeed, thanks to an increase in the average weight of wool sheared per head, the amount of this commodity produced in the northern New England states maintained itself fairly well. Although the number of sheep in Vermont decreased 64 percent during these years, the wool clip fell but 8 percent, while the sheep in New Hampshire dropped by 59 percent and the wool production declined only 10 percent. In Maine, moreover, the 33 percent decline in the number of sheep was counterbalanced by an increase of 21 percent in the amount of wool sheared.[63]

By means of careful breeding it became possible to grow more wool on the individual animals. The average weight of wool sheared per head in Vermont in 1840 was 2.2 pounds, while by 1870 it amounted to 5.34 pounds, an increase of 143 percent, the largest in northern New England. In New Hampshire it rose 124 percent, from 2.04 pounds in 1840 to 4.54 in 1870, and in Maine, 77 percent, from 2.25 to 4.00 pounds.[64]

[62] See above, p. 81, note 29.

[63] *Special Report on the History and Present Condition of the Sheep Industry of the United States*, pp. 329, 333, 336. The following are the figures:

POUNDS OF WOOL SHEARED IN THE NEW ENGLAND HILL COUNTRY, 1840-70

| | Vermont | New Hampshire | Maine |
|---|---|---|---|
| 1840 | 3,699,235 | 1,260,517 | 1,465,551 |
| 1850 | 3,400,717 | 1,108,476 | 1,364,034 |
| 1860 | 3,118,950 | 1,160,222 | 1,495,060 |
| 1870 | 3,102,137 | 1,120,422 | 1,774,168 |

[64] *Ibid.*, pp. 329 *et seq.* The following are the figures:

AVERAGE WEIGHT OF WOOL PER HEAD OF SHEEP IN THE NEW ENGLAND HILL COUNTRY, 1840-70

| | Vermont | New Hampshire | Maine |
|---|---|---|---|
| 1840 | 2.20 | 2.04 | 2.25 |
| 1850 | 3.35 | 2.88 | 3.00 |
| 1860 | 4.14 | 3.73 | 3.30 |
| 1870 | 5.34 | 4.54 | 4.00 |

This increase in the yield per sheep was responsible in large part for sustaining the industry during the latter part of this period. Those hill-country farmers whose flocks produced more than the average weight of wool per head were able to make some profit from their sheep even after the western competition had become severe.

### Sheep Breeding

A further factor which kept sheep farming in a position of primary importance in the sixties and even the seventies was the development of Merino breeding. The Merino sheep attained a higher degree of perfection in northern New England than in any other section of the United States. Skill in breeding, together with a climate which brought out the heavier wool characteristic, gave the territory a wide reputation for producing superior wool sheep, rather than mutton sheep. The cold weather of the region afforded it an advantage over competition from milder areas, for the natural law in animal economy, that the covering of an animal adapts itself to the temperature of the place in which it lives, held true as to sheep bred in the hill country. When raised in more southern latitudes, the heavy-wooled Merino gradually lost its unnecessary coverings, and after a few generations the offspring exhibited the characteristic thick coat to a less marked degree.[65] Moreover, in northern New England, and particularly in Vermont, where the greatest stress was put on breeding, this variety of sheep developed a heavy yolk, a greasy secretion which covered the fleece to a depth of about one eighth of an inch, some of which survived the washing that was given all wool before the dealers paid for the product. Since wool was sold by weight, the demand for heavily fleeced animals with an excessive secretion of yolk was keen.[66]

[65] *Ibid.*, p. 320.

[66] Connor, "A Brief History of the Sheep Industry," p. 130. Because of the abundance of this yolk, and of the dirt of various kinds which clung to it, the highly-bred Merino was characterized by a dark brown or black tingle in the exterior of the fleece. See the picture of "Bismarck," facing page 90.

The general type on which hill-country breeders concentrated is shown in the reproduction facing this page of an old lithograph of "Bismarck," an outstanding specimen which won the sweepstakes prize of awards for the "best American Merino ram of any age" at the Philadelphia Centennial in 1876.[67] Owned by H. C. Burwell, a farmer of Bridport, in Addison County, Vermont, "Bismarck" weighed in full fleece 170 pounds and was considered one of the most perfect types of his breed. One sheep authority who saw him reported that

> his back was straight throughout and very broad, while at the same time, he had great depth of carcass. . . . His head was short, broad, and well carried up; his nose short, of good breadth, well wrinkled, and very soft and silky to the touch. His fleece was very dense, even, of most excellent style and quality, highly crimped . . . and it covered him to perfection at all points, notably so on head and legs. . . . The fiber was 3½ inches long. . . . His neck was one of the heaviest ever carried by a Merino ram and was proportionately folded at hip, tail flank, and at point of shoulder. He also had some heavy side folds which ran well under the belly.

But the crowning touch of all was the fact that he "possessed wonderful constitution and stamped his own impress in a marked degree and was a very successful sire of both rams and ewes."[68]

The business of raising and selling blooded Merino stock, both bucks and ewes, reached its highest development in Vermont, but there were a few breeders in Maine, and a larger number in New Hampshire, especially in the Connecticut River valley towns.[69] The Vermont strains, however, were considered

[67] *Special Report on the History and Present Condition of the Sheep Industry of the United States*, p. 321. At this exhibition, of the thirteen first-class and fifteen second-class awards, nine of the former and four of the latter went to Vermont sheep breeders.—*Ibid.*

[68] *Ibid.*

[69] *One Hundred Years of Rural Progress*, p. 10. The *Farmers' Monthly Visitor* of March 31, 1846, describes the breeding done by the Shakers at their community village in Enfield, west central New Hampshire. They had a "flock of strong, healthy-looking sheep," each of which bore a "thick coat of wool."—*Farmers' Monthly Visitor*, VIII (March 31, 1846), 2.

BISMARCK

CHAMPION AMERICAN MERINO

the finest, and there are frequent instances in the chronicles of the time of the purchase by Maine and New Hampshire wool growers of Vermont breeds to improve their stock.[70] In 1845, for instance, the *Maine Farmer* tells of a group of farmers along the Kennebec who had imported some blooded Merinos from Weybridge, Addison County, Vermont, and adds, "The Vermonters . . . have pursued the business of wool growing more systematically than it has been done in Maine. The consequence is better flocks."[71] The dependence of sheep men outside of Vermont upon this state for breeders continued to the end of the period. In 1863, the Maine Board of Agriculture, emphasizing the need for better-bred sheep, urged the farmers of the state "to go to New Hampshire and particularly Vermont to insure the best selection."[72]

During the six decades preceding 1870, the percentage of wool to live weight for Vermont sheep more than trebled, the proportion being 6 percent in 1812, 15 percent in 1844, and 21 percent in 1865.[73] William Jarvis of Weathersfield, whose flocks averaged, from 1811 to 1836, four pounds of washed wool per year per sheep, with his best stock rams shearing six and one-half pounds, the equivalent of nine and three-quarters pounds of unwashed fleece, announced in 1844 that he had bucks whose clips amounted to seven and one-half pounds each, or eleven and one-quarter pounds of unwashed wool.[74] By mid-century, many Vermont sheep men were producing prize rams which sheared as much as twelve pounds of unwashed wool.[75]

[70] *One Hundred Years of Rural Progress*, p. 10; Lord, *Life and Times in Hopkinton, New Hampshire*, p. 223.

[71] *Maine Farmer*, quoted in the *Farmers' Monthly Visitor*, VII (Feb. 28, 1845), 18.

[72] Maine Board of Agriculture report for 1863 (Returns from the Agricultural Societies, p. 63).

[73] *Special Report on the History and Present Condition of the Sheep Industry of the United States*, pp. 307-8.

[74] *Ibid.*

[75] Daniel Needham, *Address at the Wool Growers' Convention, Rutland, 1862*, p. 10, quoted in Stilwell, Migration from Vermont, p. 225.

There were hill-country farmers outside of Vermont, however, who established reputable names for themselves as skilled breeders. In 1838, for example, at the American Institute Fair in New York, Stephen Sibley and Joseph Barnard, two farmers from Hopkinton, New Hampshire, were awarded a silver medal for the best exhibition of fleeces of American wool.[76] Many years later, at the end of the period, a New Hampshire wool grower announced at an agricultural meeting held in Lyme that a Merino buck which he had purchased in Vermont for $100 was not giving as good results as one he had obtained from a breeder in Lyme.[77]

By the fifties, a large number of Vermont farmers, finding that they could make more money by breeding fine sheep to sell than by raising wool, were beginning to be less interested in the number of pounds of wool they produced per year, and still less in the mutton they marketed,[78] and this situation was intensified during the sixties and seventies, when the "Merino mania" reached its zenith.

Wide publicity aided in stimulating interest in the hill-country breed. The fame of the strain spread across the ocean when, in 1863, George Campbell, a leading Vermont shepherd farmer, exhibited 12 animals at an agricultural fair in Hamburg, Germany. Although in competition with over 1,700 European Merinos, 60 of them from the flock of Napoleon III, the New England stock took two first prizes and outranked all other Merino exhibits for length of staple and weight of fleece.[79]

[76] Lord, *Life and Times in Hopkinton, New Hampshire*, p. 223.

[77] New Hampshire Board of Agriculture report for 1873, p. 376.

[78] Heaton, *The Story of Vermont*, p. 179. "In Vermont," reported the Superintendent of the Seventh Census, "the greatest attention has been given to sheep breeding."—*Report of the Superintendent of the Seventh Census, 1852*, p. 67. At this time, the breeding of the Morgan horse, a strain developed in Vermont, reached such a high degree of excellence that "many left the state for breeding purposes at a price of $1,000 each."—*Vermont Journal*, March 27 and Sept. 18, 1857.

[79] Campbell's sheep were sold at the end of the fair to a Silesian breeder.—Connor, "A Brief History of the Sheep Industry," p. 130.

The high prices paid for wool during the Civil War gave a strong impetus to the breeding industry. At this time men were going into wool production as a major enterprise even on the fertile prairies, with flocks of two thousand to five thousand head. Wool growers from all over the country, and even from foreign lands, sent to the hill country and especially Vermont for Merinos for breeders, and the sheep men there reaped a rich harvest as the demand increased. As much as $3,500 to $5,000 per head was reported for the sale of extra-fine rams, while $800 or more was received frequently. For the service of the most noted rams from $2,000 to $3,000 a season was charged, while extra-fine ewes commanded from $100 to $300 per head. One Vermont farmer is said to have refused $10,000 for his best ram on the ground that he could not risk a deterioration in his flock by letting him go, while another, it was reported, declined to sell his flock of two hundred head for $50,000.[80]

In these boom days outstanding rams often took on the personality of a human being in the eyes of the rural community. When a famous buck died, local papers printed eulogistic notices mentioning how much the sheep would be "mourned." For example, in the Middlebury, Vermont, *Register* of August 9, 1865, this obituary appeared:

> Mr. Hammond's best ram, Gold Drop, died Sunday night. This sheep probably had a better reputation than any that ever lived. Mr. Hammond could at any time for years past have taken $10,000 for him. He was valued at $25,000. He will be sincerely mourned by all sheep breeders at home and abroad.[81]

At the height of the "Merino mania" deceptions were not infrequently practiced, so insistent was the demand for this type of breeder. New York sheep were often shipped into Vermont and then sold from that state as being of the Vermont

[80] Connor, "A Brief History of the Sheep Industry," p. 130.

[81] Waugh, "New Farming for Old New England," p. 18. Middlebury was the shire town of Addison County, the center of the sheep breeding industry.

strain.[82] Moreover, the "Cornwall finish"[83]—a mixture of burnt umber, lampblack, and linseed oil—was occasionally applied to inferior animals to give their fleece the characteristic color of the highly bred Vermont Merino with its heavy secretion of yolk. The application was often so successful that none but flockmasters well acquainted with the breed could detect it. The sheep were then shipped to unsuspecting Western farmers, the "Cornwall finish" staying on as long as no rains washed it off. Every animal with the look of a Merino and a greasy fleece had a ready sale.[84]

While the decline in the price of wool after the Civil War brought a decrease in the demand for Merinos, a few professional breeders in the hill country were able to continue their business profitably even into the eighties, as we shall see.[85] But by 1870 the production of wool as a staple was becoming a thing of the past in the northern New England states. The benefits derived from sheep raising had served to insure the economic welfare of the area through the middle decades of the nineteenth century, and sheep breeding, while it yielded large profits to only a few of the more progressive farmers, had brought money into the region and thus aided in sustaining the respectability of farming as an occupation. In the last quarter of the century, however, farming on the New England hillsides became increasingly unprofitable, and the abandonment of thousands of the more isolated farms ensued. The hill country's Indian summer was over; its winter lay directly ahead. An investigation of the situation in rural northern New England from 1870 to 1900 will show how widespread a readjustment that region had to undergo before it could begin to cope even partially satisfactorily with modern economic conditions.

[82] Connor, "A Brief History of the Sheep Industry," p. 130.
[83] Cornwall is a town in Addison County, Vermont.
[84] Connor, "A Brief History of the Sheep Industry," p. 130.
[85] See below, pp. 184-87.

# WINTER: 1870-1900

In the last three decades of the nineteen century northern New England went through a severe winter season. To be sure, the situation was still far from satisfactory in the period which followed, but by that time the region had built up sufficient resistance to maintain its agricultural life in spite of adverse conditions. In the years from 1870 to 1900, however, the shock of the widesperad desertion of farms and the pronounced decline in rural population, with their social and economic consequences, stunned the hill country. The few places abandoned before 1870 had made little impression upon it, but as the years advanced the increasing numbers of unoccupied farms and moribund hill villages brought all portions of the territory squarely face to face with the necessity of a broad adjustment to new conditions. "What shall the New England farmer do?" asked C. G. Nott in the *Nation* in 1889. "He cannot compete in cereals with the West; . . . in cattle with men whose herds run summer and winter on the free ranches of the Government; in wool with the unhoused flocks of Texas and California, of New Zealand and Australia; in butter with Nebraska and Iowa; in dressed beef with Armour's syndicate; in the labor market with local manufactures." An examination of the situation in the hill country during this period and an evaluation of the causes for its ills, together with a discussion of various influences which helped to ameliorate the difficulties to a certain extent, will be considered in this section of our study.

# V

## ABANDONMENT AND RETRENCHMENT

*The observing traveller . . . will notice . . . in the older settled portions many evidences of decay and desertion. The crumbling ruins of the foundations only are left to mark the site, or perchance it may be that the tottering well sweep and perennial lilac bush still stand as mementoes of once happy homes, where families were born, reared and went forth to do valiant service in the battle of life.*[1]

THE curtailment of the amount of land under cultivation and the abandonment of thousands of unfavorably located farms during these decades caused striking changes in northern New England which were immediately noticeable in the enormous decline in the production of staple crops, the widespread decrease in the amount of improved land, and the sharp drop in farm values.

### Agricultural Shrinkage

By the seventies the hill-country farmer was finding his former staple crops so unprofitable that their production was no longer practicable. In the previous period the growing of grains had yielded him high returns, especially in virgin territory. The *Farmers' Monthly Visitor* recounted in 1841, for instance, the case of one Captain Samuel Blake, who had purchased one hundred acres of land in 1840 far up the side of Kearsarge Mountain, in west central New Hampshire, at $4.50 an acre. During that summer he cut off and burned over sixteen acres of his farm, sowing twelve acres of it to rye in the fall. His first crops amounted to 210 bushels, the larger portion of which he sold upon the spot for a dollar a bushel, cash.[2] Condi-

[1] E. R. Pember, writing in the early eighties of a contemporary scene.—"Our Hill Farms," p. 362.

[2] *Farmers' Monthly Visitor*, III (Dec. 31, 1841), 187.

tions in the seventies were far different from this. The influx of grains from the West began to drive the New England products out of the market even before the onset of the period under consideration, and by 1890 a speaker at an agricultural meeting in New Hampshire was compelled to report that one by one the hill-country farmers had been forced to abandon the growing of this or that grain crop "because the West crowded them beyond the paying point."[3]

The effect of Western competition was felt most keenly in the growing of wheat, in which the decline during the last thirty years of the century was precipitate. While the wheat production of Vermont decreased 15 percent between 1849 and 1869, or in round numbers from 535,900 bushels to 454,700; from 1869 to 1899 it fell 92 percent, from 454,700 to 34,600 bushels. In Maine the total yield of wheat declined only 5 percent in the first period, from 296,300 bushels in 1849 to 279,800 in 1869, but in 1899 it amounted to 116,700, a drop of 58 percent. New Hampshire showed the most striking decrease. There the production rose 4 percent between 1849 and 1860, mounting from 185,700 bushels to 193,600, but fell 98 percent, to the comparatively insignificant harvest of 4,035 bushels, in the next thirty years.[4]

Less precipitate but equally impressive was the decrease in the amount of corn raised during the last half of the century. The yield of corn fell by more than three-tenths in Vermont between 1849 and 1899, dropping from 2,032,400 bushels to 1,322,400; by about two-tenths in New Hampshire, falling from 1,573,700 bushels to 1,080,700; while in Maine it de-

[3] Brewer, *The Brighter Side of New England Agriculture*, p. 8. In an earlier part of this talk, delivered before the Fifth Annual Field Meeting of the State Board of Agriculture of New Hampshire, held at Hampton Beach, Aug. 28, 1890, Mr. Brewer became lost in weather conditions: "I think we will see the sun breaking through in places. . . . I believe the clouds will roll away first and fresh sunshine and better weather for the farmer will show itself in New England."—*Ibid.*, p. 5.

[4] *Compendium of the Ninth Census*, pp. 604 *et seq.*; Reports of the Fourteenth Census, Vol. V: *Agriculture*, pp. 739-52. See Appendix 3 for exact figures.

clined by more than six-tenths, from 1,750,000 bushels in 1849 to 645,000 in 1899. In the yield of oats, Vermont maintained her production fairly well, the returns for 1879, 1889, and 1899 even showing an increase over those for 1849, with the maximum being reached, however, in 1879. In Maine the amount of oats raised increased steadily throughout the period, but in New Hampshire, where the production for 1869 was 17 percent larger than that for 1849, there was a decrease of 56 percent in the last thirty years of the century.[5]

In consequence of the pronounced decline in the acreage devoted to staple crops, and the increasing numbers of abandoned farms,[6] the total amount of so-called improved land in

[5] Reports of the Fourteenth Census, Vol. V: *Agriculture*, pp. 739-52. See Appendix 3 for complete table of wheat, corn, and oats production, 1849-99, in Maine, New Hampshire, and Vermont.

An article on "Changes in Vermont Farming," in the Vermont agricultural report for 1878, remarks in regard to the inroads of Western corn, "The county of Orleans (Vt.) a few years ago paid out $60,000 for Western corn. Judging from this, it would be a low estimate to say that $500,000 was paid out from the whole State."—Ora Paul, "Home Production: the Changes in Vermont Farming," p. 182.

[6] Interestingly enough, the number of farms reported in Vermont rose steadily until 1880, when the maximum was reached, a situation which also held true for New Hampshire and Maine. The census gatherers, however, generally included all farms, whether occupied or unoccupied. in their returns. Few of the abandoned farms had completely reverted to forest by the later decades of the century. The following table, drawn from the Reports of the Twelfth Census, Vol. V: *Agriculture*, pp. 688 *et seq.*, shows how the high water mark was reached in 1880:

TOTAL NUMBER OF FARMS IN THE NEW ENGLAND HILL COUNTRY, 1850-1900

| | Vermont | New Hampshire | Maine |
|---|---|---|---|
| 1850 | 29,763 | 29,229 | 46,760 |
| 1860 | 31,556 | 30,501 | 55,698 |
| 1870 | 33,827 | 29,642 | 59,804 |
| 1880 | 35,522 | 32,181 | 64,309 |
| 1890 | 32,573 | 29,151 | 62,013 |
| 1900 | 32,890 | 28,986 | 58,964 |

For the year 1900 the figures for Vermont do not include 214 farms with an area under three acres and reporting a gross income of less than $400 for 1899; those for New Hampshire do not include 338 farms in the same category, and those for Maine do not include 353 farms in the same category.

northern New England dropped steadily during the last three decades of the century. The proportion of improved land in Vermont, for instance, rose from 63 percent in 1850 to 68 percent in 1870, but fell to 67 percent in 1880, to 60 percent in 1890, and to 45 percent in 1900. In New Hampshire the percentage dropped from 66 percent in 1850 to 64 percent in 1870, 62 percent in 1880, 50 percent in 1890, sliding to 30 percent in 1900. In Maine, where new territory was still being settled at a later date than in the other two states, the proportion mounted until 1880, rising from 45 percent in 1850 to 53 percent in 1880, but it declined to 49 percent in 1890, and to 38 percent in 1900.[7]

The sharp decrease in the latter decades of the century must be partially ascribed to a change in the definition of improved land, for while there was clearly a considerable diminution in the amount of rougher pasture land once utilized for sheep, and also a falling off in tillage land on unoccupied farms grown up to bush, a portion of the decline can be attributed to modifications in the conception of what was meant by this type of land. In 1850 and in the two censuses following, improved land meant land cleared and used for grazing, mowing, or tillage, or land cleared and lying fallow, while unimproved land meant the farmers' wood lots. From 1880 to 1900, the definition was narrowed to exclude abandoned fields, and rough and rocky pastures. The census gatherers, moreover, became increasingly discriminatory each decade. Thus by 1900, even though they

[7] The number of acres of improved land for each decade from 1850 to 1900, according to the Reports of the Twelfth Census, Vol. V: *Agriculture*, pp. 692-94, are:

| | Vermont | New Hampshire | Maine |
|---|---|---|---|
| 1850 | 2,601,409 | 2,251,488 | 2,039,596 |
| 1860 | 2,823,157 | 2,367,034 | 2,704,133 |
| 1870 | 3,073,257 | 2,334,487 | 2,917,793 |
| 1880 | 3,286,461 | 2,308,112 | 3,484,908 |
| 1890 | 2,655,043 | 1,727,387 | 3,044,666 |
| 1900 | 2,126,624 | 1,076,870 | 2,386,889 |

had not as yet grown up to brush, but were lying fallow, the rougher and rockier pastures on which sheep had lived but which cows found it difficult to crop, were generally classified as unimproved.[8]

Accompanying the decrease in the production of staples and the decline in the acreage of improved land came a depreciation in the value of farm property. In an era when farm values generally increased throughout the United States, in the hill country they tended to go in the opposite direction. Thus in Vermont in 1870, according to the computed gold values (80 percent of the currency values reported in that year), the total worth of farm property was $134,804,951, while in 1890 the total had shrunk to $101,805,370, with only a slight increase, to $108,451,427, by 1900. The computed gold value of farm land and buildings in Vermont, which in 1870 was $111,493,660, had dropped to $80,427,490 in 1890, with an increase to $83,071,620 by 1900.[9]

The price of hill-farm lands in northern New England fell decidedly during this period, and many went to still lower levels in the next century. Lists of farms for sale, published in the nineties by the Board of Agriculture in both New Hampshire and Vermont, gave remarkably low prices, even when it is taken into consideration that many of the farms advertised were unoccupied, and situated in unfavorable locations. The New Hampshire list describes farms with "fairly comfortable buildings at prices from $2 to $10 an acre"[10] and the Vermont

[8] Harper, "Changes in Forest Area of New England in Three Centuries," p. 445.

The Census of 1910 amplified the definition by explaining: "Improved land includes all land regularly tilled or mowed, land pastured and cropped in rotation, land lying fallow, land in gardens, orchards, vineyards, and nurseries, and land occupied by farm buildings. Woodland includes land covered with natural or planted trees. All other unimproved land includes brush land, rough or stony land and any other land not improved or in forest."—Thirteenth Census, Statistics for Vermont, p. 589.

[9] *Ibid.*, p. 592.

[10] An 1889 "Price List of Abandoned Farms in New Hampshire" offers the

Commissioner of Agriculture offers farms at "from $3 to $5 per acre and, nearer to railroad or village with better buildings at from $5 to $10, all at no great distance from market and adapted to doing business."[11] Such prices were a far cry from the $100 to $200 an acre which the editor of the *American Agriculturist* claimed in 1874 could be procured in New England for a good farm in a good locality.[12]

### The Trend of Population

A condition more evident at the time than the agricultural shrinkage was the rapid decline in rural population. So marked was the decrease that it led Rollin Lynde Hartt,[13] to note of one locality in 1900, "It is common to hear the townspeople say, 'The only place that's growin' 's the cemetery!' "[14]

Had all the people who were born and reared in rural New England stayed there, Mr. Hartt would never have found cause to make this observation. But the departure of the native-born northern New Englanders to take up their abode elsewhere in the United States was in all probability greater, and distributed over a longer period of time, than any similar emigration which occurred fom any other section of equal size in the Union.[15] During the period 1850-1900, only about 61 percent of the natives of Vermont made the state of their birth their per-

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seventy-acre farm of E. F. Mann in Benton, a hill town in the northeastern part of the state, for $3.00 an acre; the two-hundred-acre farm of S. P. Osgood in Charlestown, a town on the Connecticut River, for $5.00 an acre.—*Granite Monthly*, II (1889), 342-44.

[11] Currier, "The Decline of Rural New England," p. 387. Mr. Currier adds, "I know of the sale of such a farm of 50 acres with fair buildings, well supplied with water and fuel for $52."—*Ibid.*

[12] *American Agriculturist*, XXXIII (1874), 409. The editor admitted, however, that he had seen hill farms in New England that persons accustomed to level land would consider of little value.—*Ibid.*

[13] Mr. Hartt was one of the first writers to point out, in the nineties, what was happening to rural New England.

[14] Hartt, "Regeneration of Rural New England," p. 506.

[15] Rossiter, "Vermont," p. 427. See also Appendix 2.

manent home, while in each decade about two out of every five people born there left it.[16]

A glance at the maps on page 105 will show more clearly what was happening to the population in northwestern New England during the last three decades of the century.[17] From 1870 to 1880, 59 percent of the towns in Vermont dropped in residents, while the proportion in New Hampshire was 53 percent.[18] During the next decade the number of Vermont towns decreasing in size reached its height, 81 percent of them losing. Indeed, during these ten years the total population of the state rose by only 136, from 332,286 to 332,422. A few scattered localities which maintained their position by an increase in the non-agricultural population, and a section of towns in the northern part of the state, were the only areas which did not suffer a decline. In New Hampshire, approximately two-thirds

[16] The number of percentages of those migrating are given in the following table, from the same source:

| | Total number of natives of Vermont residing in the United States | Total number of natives of Vermont residing outside Vermont | Percentage of emigrants |
|---|---|---|---|
| 1850 | 377,741 | 145,655 | 38.6 |
| 1860 | 413,852 | 174,765 | 42.2 |
| 1870 | 420,978 | 177,164 | 42.1 |
| 1880 | 430,041 | 178,261 | 41.5 |
| 1890 | 422,359 | 172,769 | 40.9 |
| 1000 | 416,672 | 168,542 | 40.4 |

At a later date, this extended emigration occasioned a reference to the region as "one of the most reliable seedbeds of our national life."—Statement of Dr. Henry C. Taylor, Director of the Vermont Commission on Country Life, in Two Hundred Vermonters; *Rural Vermont*, p. 1.

[17] The situation in Maine was similar. Between 1870 and 1880, for instance, 53 percent of the towns in Maine dropped in number of inhabitants, a figure duplicated by New Hampshire in the same ten years. The total population of Maine increased by 12,150 during this time, however, for the loss in the rural districts of 24,391 was overcome by a gain in the cities of 36,541. See Maine Board of Agriculture report for 1896, p. 222; Reports of the Twelfth Census, Vol. II: *Population*, pp. cxxv-cxxix.

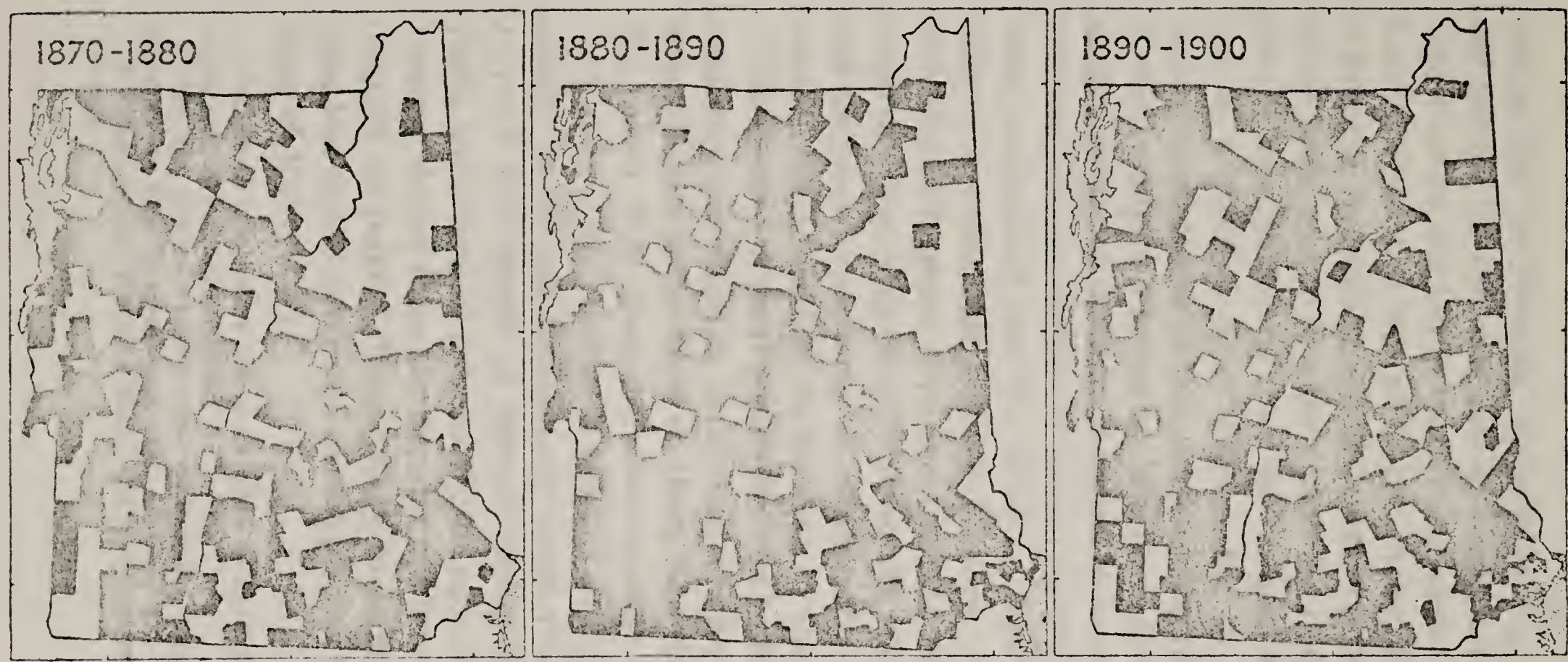
[18] None of these percentages include cities.

of the towns dropped in numbers during this time, a percentage considerably smaller than Vermont's. The majority of places losing were situated in the rough hill regions away from the railroad. During the last decade of the century the proportion of New Hampshire towns falling in population remained about the same, although many which had gained in the preceding ten years lost from 1890 to 1900, while others previously declining were able to sustain their numbers and even augment them slightly. In Vermont, however, the percentage of towns decreasing dropped from 81 to 72 percent, but this was still higher than the proportion in the neighboring state.

In Vermont the area which suffered losses during this period covers a greater expanse than in the preceding one, but more towns in New Hampshire show consistent gains than in the forty years before 1870. While these increases were for the most part of non-agricultural population in the growing industrial cities and villages in the southern part of the latter state, many townships in Coos County in the White Mountain region continued to maintain and even in some cases to enlarge their number of inhabitants. In frequent cases, however, this was due to the development of lumbering and not of farming.

Less than a score of townships in Vermont increased steadily in these thirty years, and practically all of these owed their well-being to thriving industrial villages within their bounds. It should be noted, however, that a number of hill-country towns, situated in the more newly developed regions, did not attain their maximum population until these last three decades of the century. A study of the census figures reveals that a number located in the more remote fastnesses of the Green Mountain range did not reach their high point until 1870 or 1880, while others in the more recently occupied northern portion touched their zenith in 1880 and 1890.

A few groups of agricultural towns which reported increases at every census in the preceding period decreased each decade




POPULATION TRENDS BY TOWNSHIPS IN NEW HAMPSHIRE AND VERMONT, 1870-1900

Townships that have suffered loss of population are in solid black.

during this. In Vermont, the neighboring towns of Underhill and Bolton, for instance, rose in numbers at every census from 1830 to 1870, but lost at every enumeration from 1870 to 1900. A similar situation existed in Jay, facing the Canadian border, in Morgan, Brownington, and Coventry in the northeastern part of the state, and in Stockbridge in the central section. During the previous period no town in Vermont north of Monkton[19] lost in population every decade, but in these thirty years, twenty-seven towns in this territory shrank steadily. Thirteen of the twenty-two towns in Windham County, in the southeastern corner of the state, dropped in numbers at every census in these years, in contrast to nine in the preceding period. Even more pronounced was the trend in New Hampshire, where thirty-five towns lost steadily between 1830 and 1870, and seventy-five between 1870 and 1900. In the latter period, two strips of towns lying directly across the state in its central portion decreased constantly in inhabitants, as did most of the more isolated localities in the hills of the southwestern part.

The decline in rural population can be further illustrated by examining the statistics of the total number of people employed in agriculture in the three northern New England states during this period. This group dwindled steadily. In New Hampshire, for instance, the number of persons so employed fell approximately 30 percent between 1870 and 1880, from 64,573[20] to 45,122,[21] and almost 32 percent during the following twenty years, amounting to only 30,782 in 1900. While the decline in Vermont during these two decades was less marked, the number dropped 10 percent, from 55,645 to 49,820, and in Maine, a little less than 8 percent, from 83,437 in 1880 to 76,923 at the close of the century.[22]

[19] Monkton is located a few miles south of Burlington, in the second tier of towns east of Lake Champlain.

[20] Of this number, 15,666 were agricultural laborers.—*The Statistics and Gazetteer of New Hampshire*, p. 498.

[21] Reports of the Twelfth Census, Vol. II: *Population*, pp. cxxv-cxxix.

[22] *Ibid.*

As the rural population decreased, the proportion of people living under urban conditions rose, and between 1880 and 1890 New England as a whole swung into the latter classification, for, according to the census of 1890, 51 percent of its inhabitants were living in cities or towns with a population of 2,500 or over.[23] The southern New England states were most strongly urban, with 69 percent in Massachusetts, 78 percent in Rhode Island, and 51 percent in Connecticut. Northern New England was still preponderantly rural, the 1890 proportions of urban population being 19 percent in Maine, 27 percent in New Hampshire, and but 7 percent in Vermont.[24]

Although in the last-named state the percentage of urban population, as the Federal census defined the term, was small, the number of people living in towns of over 2,000 more than doubled during this period. In 1880, out of a total population of 332,286 in Vermont, there were 77,015 persons living in such communities; in 1890, 119,207 out of 332,422; and in 1900, 156,750 out of 343,641. The increase in the population of the larger towns was accompanied by a marked decrease in the number of rural inhabitants. If the strictly rural population is considered to be that found in townships under 2,000, the

[23] The method of distinguishing rural from urban population in New England is explained in the Eleventh Census as follows: "The New England towns in most cases contain both urban and rural populations in varying proportions. Therefore, unless one has personal acquaintance with them, he has no basis for obtaining the relative proportion of these elements in any town except as indicated by the total population of the town. If the town be large, the presumption is that it contains a considerable urban population, while if it is small, it is probably all or nearly all rural. . . . The elimination of the urban element has been largely a matter of personal acquaintance, an estimate based thereon being guided to some extent by the population of the town, a population in excess of 2,500 indicating that a considerable portion of the people were living under urban conditions.—Reports of the Eleventh Census, I, lxx.

[24] Atherton, "The Future of New England Agriculture," p. 94.

"The decrease in rural population in the New England states during 1880-1890 was as follows: Maine, 24,391; New Hampshire, 8,575; Vermont, 18,944; Massachusetts, 6,522; Rhode Island, 508; and Connecticut, 11,964. Only five other states in the Union showed a decrease in rural population during this period. They were New York, Maryland, Ohio, Illinois, and Nevada."—Reports of the Eleventh Census, I, lxx.

rural population of the state diminished in the period 1850-1900 as follows:[25] 1850: 289,472; 1860: 272,402; 1870: 266,957; 1880: 255,015; 1890: 213,215; 1900: 186,991.

### The Abandoned Farm

Behind the dry statistics showing a decline in the amount of farm products and improved land and a decrease in the rural population lay the empty homes, untilled fields, and collapsing barns of the deserted hill locations. In many cases all that was left were the cellar holes—"the tombs of abandoned farms," as one writer termed them.[26]

The relinquishment of the less favorably situated places occurred at first mainly in the hilly regions of the earlier settled portions of northern New England. The greater number were to be found in the towns which had reached their maximum population in the fifties or before, while little abandonment was as yet taking place in the towns which did not attain their highest numbers until the latter decades of the century. The Vermont agricultural report pointed out in 1883 that nowhere in that state was the desertion of farms so noticeable as in the older sections, particularly in Windham County,[27] and a similar trend was noted in the earlier occupied areas of New Hampshire. A citizen of a town in the southwestern part of that state observed in 1889 that in 1865 within one mile of the rural schoolhouse of his childhood, he had counted nine old cellar holes. Twenty-two years later, he found within the same radius, twenty-three abandoned farm sites. With a touch of nostalgia for the "good old times," he concluded,

> About these spots where in most cases large, well-made houses formerly stood, filled with strapping boys and buxom girls, still linger some vestiges of former days . . . , a scraggy orchard, a lone rose-

[25] George F. Wells, "The Status of Rural Vermont, 1903," p. 70.

[26] Browne, *The History of Hillsborough, New Hampshire*, p. 331.

[27] Pember, "Our Hill Farms," p. 363. The first permanent white settlements made in Vermont were in Windham County.

bush, or a sentinel shade tree . . . , to tell where the husbandman and housewife ceased to plant and to tend.[28]

Interest in what was happening to northern New England during this period was widespread, and practically every traveler who visited the region had some comment to make. There was much material for uncomfortable observations, even by the early seventies. "The farming? The farming?" said Horace Greeley in 1872 to a friend who sat beside him in a New Hampshire railroad car, looking out at the fields through which they were passing, "What do I think of the farming? Where? I see no farming!"[29]

Contemporary articles concerning the situation in the hill country offer two different viewpoints on its plight. A number of writers believed that the abandonment of the back-hill farms was inevitable under the changed circumstances. They pointed out that those who left this type of farm were really improving

[28] W. C. Frost, "Desolate Farm Sites in New England," p. 431.

Abandoned farms were not products of a condition peculiar to northern New England alone, in this period. Although in a smaller degree and covering a smaller acreage, they were to be found, for example, in the neighboring states of Massachusetts and New York. According to two editions of *Farms in Massachusetts Abandoned or Partially Abandoned,* published by the Commonwealth in 1891, there were 906 abandoned or partially abandoned farms in Massachusetts, most of which were to be found in the hill counties in the central and western parts of the state. Worcester County had 256; Berkshire County, 146; and Franklin County, 103. In 1894, 887 of these farms were listed, with 249 in Worcester County, 140 in Berkshire, and 103 in Franklin. Only the farms offered for sale were listed in these pamphlets. The total number of farms reported abandoned or partially abandoned in Massachusetts, some of which were not for sale, was 1,563 in 1894; 1,576 in 1895; 1,918 in 1896, and 1,935 in 1897.—Sessions, *Farms in Massachusetts Abandoned or Partially Abandoned,* p. 9 of 1891 edition, p. 13 of 1894 edition; Massachusetts Board of Agriculture report for 1894, p. vii; *ibid.,* 1895, p. xx; *ibid.,* 1896, p. xxi; *ibid.,* 1897, p. xxiv.

In New York, also, in the same period, the number of abandoned farms increased. The Lyons (N.Y.) *Republican* stated on Nov. 22, 1889, for instance, that agricultural depression was not confined to New England. "In the rural districts of Wayne County, there are no less than 400 empty houses. . . . The town of Sodus alone has over fifty deserted houses and Huron thirty or more."—Veeder, "Deserted Farms in New York," p. 431.

[29] Walker, *Collection of Addresses,* I, 234.

their position by saving themselves years of struggle in wresting a living from farms which would never have been settled under modern conditions. There were others, however, who maintained, in spite of census returns, that nothing was wrong, while still more asserted that the abandoned land could be made to pay if only some scheme for meeting the new conditions could be devised.

The first viewpoint is shown in an excerpt from the report of the New Hampshire Board of Agriculture in 1872, in which the observer declared that he did not feel that some new plan should be contrived and enforced to keep the citizens of the state on their old farms. Much as he deplored the depopulation of the once prosperous back-hill regions, he believed that no one who truly had the real good of his fellow men at heart could urge the continued cultivation of soil that would not pay for tilling it. He stated, furthermore, that a large portion of each New England state was no longer economically profitable for farming, and the sooner it was abandoned, the better.[30] Similarly, the Vermont agricultural report prophesied in 1878 that the poorest lands would eventually be given up, and "only the fertile meadows . . . cultivated,"[31] while a decade later it noted that the 200,000 acres in the state "said to be more or less deserted . . . ought to be left to grow to timber again."[32]

On the other hand, numerous writers disregarded the census returns and ignored the plain facts of the case. Among them was the editor of the *American Agriculturist*, who, in answer to a question from Delaware in 1874 about the rumored decay of New England agriculture, replied that no person should sup-

[30] Lawrence, "The New Departure," p. 259.

[31] J. O. Adams, "Better Culture," p. 150.

[32] Chapin, "Vermont Farms and Farmers," p. 289. The author of this article pointed out that the occupied farms were becoming more productive. In 1889, according to the Department of Agriculture at Washington, Vermont stood first among all the states in the yield of corn per acre, and third in the yield of oats per acre.

pose that any farm was given up by its owners or any land thrown out of cultivation where farm products brought the price they did in New England. "These abandoned farms and houses exist," he maintained, "only in imagination."[33]

Contemporary state investigations proved, however, that the optimism of this commentator was not grounded on reality. One such inquiry was made in the early seventies by the New Hampshire Board of Agriculture. Questionnaires were sent out to the various towns of the state asking about the profits of farming, the comparative tendency to emigration, and other practical matters. Though not all replied, a classification of the answers from 141 of these towns showed a list of 55 in which none of the farmers were reported as making a profit and a list of 53 others in which only a few were able to save money, while from the town clerk of Freedom came the report that there seemed "to be a lack of energy and enterprise," and no one in the town was "living solely from the farm."[34]

In spite of such discouraging returns as this, there were still many critics who, while admitting that there were obstacles to be overcome in gaining a livelihood from the hill farm, believed that they could be conquered by diligent toil. One observer of this type asserted in 1888 that the neglected, uncultivated farms were by no means worthless. Only "courage, economy, and faithful, well-directed labor" were necessary to bring them back to fruitfulness and beauty.[35]

But those who possessed these necessary qualifications were less and less disposed to spend their lives trying to eke out a living on such a farm, while those who did not enjoy them

[33] *American Agriculturist*, XXXIII (1874), 409.

[34] Statement of J. O. Adams, Secretary of the New Hampshire Board of Agriculture, in the United States Department of Agriculture report for 1874, p. 191. In explaining the returns to these circulars, the Secretary said, "No farmers are making money in Sandown, for the reason that their 'lands are worn out or grown over with wood and bushes.'"—*Ibid.*

[35] Camp, "Some Hindrances to Success," p. 188.

were unable to make their places pay. Under these circumstances, the number of unoccupied homesteads in the hill country increased rapidly, until by the nineties they became the subject of widespread comment. Scarcely a major periodical appeared in this decade without at least one reference to the abandoned farms of New England, and the "haunted" houses with their decaying doorsills and gaping windows.

The phenomenon made a deep impression upon all beholders. The New England countryside had seemed so fortified against adversity that the desertion of farming enterprises appeared to observers to be an overwhelming misfortune from which it could never recover. The sight of one poorly situated, unoccupied farm on a steep and isolated hillside so diverted the attention of the average person that he failed to realize that the more favorably situated places in the region were still occupied. Indeed, the general tone of many of the writings of this decade would indicate that all northern New England was reverting to forest, and in the late nineties, when commentators such as Rollin Lynde Hartt began seriously to consider the economic and social consequences of the declining population—expatiating upon the decadent inhabitants and peculiar children encountered in some of the remote communities—their delineations of pathological conditions in a few isolated localities were frequently interpreted as applying to all the hill country. As a matter of fact, the descriptions did not mean that the whole countryside was ruined. To assume that they represented conditions in rural New England as a whole was like judging a city by its slums.

> The blight of the country is where people have deserted it [observed a writer recently], just as that of the city is where too many have sought its embrace. In one case, the blood supply goes short and we become anemic; in the other, the blood congests and creates inflammation.[36]

[36] Stevens, "New England Brings Some Ghosts Back to Life," p. 105.

The majority of the contemporary accounts of abandoned farms are filled to overflowing with dolorous descriptions and direful phophecies. Frequent resort was had to Oliver Goldsmith's famous poem—it depicted the situation so vividly without causing undue strain on the author.

We have places here in Vermont [noted an article in the state agricultural report in 1876], that remind us of the lines in . . . [the] "Deserted Village," where

> "The sounds of population fail,
> No cheerful murmurs fluctuate in the gale,
> No busy steps to the grass grown footway tread,
> But all the bloomy flash of life is fled."[37]

While this kind of publicity reached its height in the nineties, it continued into the first part of the twentieth century. By the second decade, however, fewer and fewer commentaries found concern over the abandoned farms of New England. In 1922, the *Readers' Guide,* the subject index of periodical literature, for the first time failed to list articles under the heading "Abandoned Farms." In previous years, from five to ten were noted in each volume.

Three of the more touching accounts, describing a deserted village, an abandoned farm, and general conditions in a hill township, serve to indicate the extent to which the emotions were affected in the eighties and nineties. In 1889, the *Nation* published the reactions of a judge after he had passed through a deserted hill village in southern Vermont.

Midway between Williamstown and Brattleboro [he wrote], I saw on the summit of a hill against the evening sky what seemed a large cathedral. Driving thither, I found a huge, old-time, two-story church, a large academy (which blended in the distance with the church), a village with a broad street, perhaps 150 feet wide. I drove on and found that the church was abandoned, the academy dismantled, the village deserted. The farmer who owned the farm on the north of the village lived on one side of the broad street and he who owned the

[37] Howe, "The Merits of Our State," p. 537.

farm on the south lived on the other, and they were the only inhabitants. All of the others had gone—to the manufacturing villages, to the great cities, to the West. Here had been industry, education, religion, comfort, and contentment, but there remained only a drear solitude of forsaken homes. The deserted village was the old-fashioned "Centre" of the town, on a high hill, remote from railways and mill-streams, unknown to summer boarders—an agricultural village, dependent upon the agriculture around it and from which it sprang.[38]

In 1893, a graphic word picture of the abandoned farm was drawn by Clifton Johnson:

The children left it, drawn by dreams of the gains the city or the sea or the far West offers; and the parents are gone, too, now. The shingles and clapboards loosen and the roof sags and within, damp, mossy decay has fastened itself to walls, floor and ceiling of every room. Gaps have broken in the stone walls along the roadway, and the brambles are thick, springing on either side. In the front yard is a gnarled, untrimmed apple tree, with a great broken limb sagging to the ground, and about, a ragged growth of bushes. As time goes on, the house falls, piece by piece, and at last only the shattered frame stands, a grim memorial of the dead past.[39]

In 1897, the *Atlantic Monthly* published an article in which the author described conditions in an interior hill town of New Hampshire in the same spirit. He found the fields wearing "a disappointed, discouraged air" and noted lugubriously that

The roads, bad at all seasons and in the spring almost impassable, are so encroached upon by untrimmed brush that wagons have much ado to pass one another. Such guideboards as are not prone and crumbling, are battered and illegible. The mail boxes at the cross-roads are as untrustworthy as worn-out pockets. The orchards are exceptionally picturesque, but they owe their picturesqueness to the unpruned, scraggly, hollow-trunked condition of the trees. . . . The stone walls[40] and rail fences which outline them—they cannot by

[38] Nott, "A Good Farm for Nothing," p. 498.

[39] Johnson, *The New England Country*, pp. 36-37.

[40] The stone walls of New England were then, and have been since, a favorite subject for discussion in various articles on the New England countryside. By 1927, they were called the "immutable relics of the hill country. . . . Built with ceaseless energy—work comparable only to the building of the

any stretch of the imagination be said to enclose them—sag at all possible angles, uncertain in their courses as drunken men without guides.[41]

The general tone of these articles call to mind the lines of Robert Frost:

> . . . How are we to write
> The Russian novel in America
> As long as life goes so unterribly?
>
> . . .
>
> We get what little misery we can
> Out of not having cause for misery.[42]

The increasing number of unoccupied farms and the consequent retreat of civilization cannot be truly called cause for misery, even though the majority of writers who described the movement wrote of it as a calamity. To be sure, it was hard for those who stayed on to watch their friends and neighbors, one by one, "pull up stakes," have an auction, and fare forth. Moreover, each newly abandoned place in the neighborhood seemed an affront to the vocation of farming. But the majority of those who left the submarginal farm found life easier when they no longer struggled to earn a livelihood from it. They were really bettering their own fortunes by moving into more favorable locations or by leaving the hill town completely. A thorough investigation of the causes of these conditions will explain more clearly how such a situation came to pass.

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pyramids—these walls extend through a field now become the forest, as silent memorial of a dead race. Up steep hills, down valleys, criss-crossing fields, pastures and sugar orchards, they set off one lot from another, separate this man from that by a quiet bar of stone, as befits New Englanders. One would say, 'Here is something which will endure!' But, alas, even stone walls are transitory. Robert Frost made accurate observation when he wrote,

> 'Something there is that doesn't love a wall,
> That sends the frozen ground swell under it,
> And spills the upper boulders in the sun.' "
>
> —Andler, "Nature Comes into Her Own," p. 87.

[41] A. F. Sanborn, "The Future of Rural New England," p. 74.

[42] Robert Frost, quoted in the *Nation*, CXIX (Aug. 20, 1924), 183.

# VI

## THE CAUSES OF RURAL DECLINE

*The meadows of New England . . . have been ploughed and re-ploughed; the harrow gone over to level them; loads and loads of stones have been picked up from them; boulders have been blasted out: . . . and still the farmers' machines are blunted and broken by stones and hillocks and tangling roots, and the ground must be continually fed with manure.*[1]

THE causes for the decline in the New England hill country are so closely interwoven that it is difficult to unravel the various strands. No one thread predominates, although some stand out more clearly than others and thus give color to the whole. No single factor brought about this change; it was the combined effect of them all.

To one who has been perusing innumerable articles, books, and other material on rural New England, the countless variety of reasons given for its difficulties seems overwhelming. Every observer of conditions in the region was but too ready to proclaim his pet theories on the situation. Even foreign travelers found time to make observations on the causes of the hill country's ills, and sometimes showed a clearer understanding than many contemporary American commentators. Thus, a Frenchman writing in 1894 noted:

La pauvreté de certaines terres comparativement à d'autres, la configuration du sol qui ne permet pas ou qui rend plus difficile qu'ailleurs la culture par les machines, l'éloignement des marchés ou des voies de communication, l'attraction des villes qui attirent dans leurs murs ou dans leurs banlieues par leurs fabriques, leurs écoles, et autres commodités de la vie, par le certitude d'un large marché pour la vente des denrées, sont les causes principales de cet abandon qui

[1] "Kansas, How to Go There, the Soil, etc.," p. 356.

n'implique pas nécessairement une décadence générale de l'agriculture.[2]

Before we consider such fundamental conditioning factors as the very location of the rough hill farm, Western competition, and urban attraction, an intensive investigation of the various minor causes will show how diverse were the lesser factors which many writers on the subject mentioned as playing important rôles in the "tragedy" of rural New England. It would be impossible to describe every cause alluded to, but a discussion of those more frequently cited will indicate how wide a range they covered. Some of the following miscellaneous reasons were actually related to the deterioration of the region, but, as we shall see, others were decidedly far-fetched.

## Miscellaneous Causes

A minor factor constantly referred to in contemporary discussion of the problems of the New England farmer was the unfair burden of taxation. In earlier times the taxes were not regarded as oppressive. In 1820, for instance, an observer wrote, "There are no burdensome taxes. Those which would be most so, the militia and the highway labours, are lightened by being paid in personal service at the most convenient seasons."[3] Half a century later, however, conditions had so changed that an article in the 1873 report of the Vermont Board of Agriculture exhorted the citizens to "recommend the Legislature that our laws of taxation be so far amended and modified as to protect and lift from the aspiring farmer, the burden of unjust taxation.[4]

Statistics given in the Vermont agricultural report for 1889-90 pointed out that the farmers were paying more than their fair share into the public treasury. For the years 1884 and

[2] Levasseur, *"L'Agriculture aux États-Unis*, p. 187.

[3] Tudor, *Letters on the Eastern States*, p. 202.

[4] Dwinell, "What Can Be Done to Keep Our Young Men in Vermont?" p. 264.

1885, for instance, the average tax on farm property was $1.25 on every $100 worth. The savings banks paid but 60 cents on that amount. In the latter year, the thousand miles of railroad in Vermont, appraised at $30,000,000, much less than its real value, paid in taxes $87,445. At the rate the farm owner paid, the amount would have been $375,000.[5]

Other portions of the hill country felt similarly aggrieved. In New Hampshire, for example, the State Grange in 1895 appointed a special committee on taxation which urged in its report an equalization of the tax burden. "The amount of wealth virtually ignoring taxation, even in little New Hampshire," it declared, "is truly appalling."[6] The farmer could make no reservations in his inventory, even if he wanted to, for his assets were mainly in real estate and personal property hard to conceal, but the personalty of the well-to-do villager could easily be misrepresented. An article appearing in the *Nation* in 1889 stated that an agent of one of the mercantile-credit companies had told him that it was the common custom of the business men in Vermont who had money invested to take false oaths on the value of their stocks and mortgages on the ground that their neighbors did the same.[7] Moreover, the valuation of farm property had not been lowered to accord with its continually decreasing negotiable worth and, by the latter nineties, was assessed in many cases for more than its market value.[8]

A study of conditions in rural Vermont made at the turn of the century ascribed to excessive taxation a measure of the economic depression which was affecting so many isolated hill-country towns. Three reasons were noted as the cause for this

[5] Vermont Board of Agriculture report for 1889-90, p. 307.

[6] *New Hampshire Agriculturist*, I (Feb., 1896), 1. It was claimed that nearly seventy millions invested in savings paid less than half the average rate of taxation in the state, while more than twenty millions invested in railroading was owned by stockholders who paid almost no tax on it.—*Ibid.*

[7] G.W.R., "The Decay of Farming in New England," p. 367.

[8] *Ibid.; New Hampshire Agriculturist*, I (Feb., 1896), 1.

tax rate: a decreasing population density; the diminished amount of taxable property; and the fact that a small increase in the tax rate was often indirectly the cause of a further increase.[9]

It is interesting to note that the highest rate of taxation was to be found in the more remote hill towns. Few of the fifty-six Vermont towns having the highest tax rate levied for strictly rural purposes[10] for the years 1900 to 1902 inclusive were situated on a railroad, and the majority lay along or adjacent to the backbone of the Green Mountain range. These towns all had a rate of $1.75 or more to every $100 worth of taxable property. The remaining towns in the state taxing for strictly rural purposes had a much lower rate, such as $1.25 or less. The latter were generally more favorably situated, and included all those in the Champlain Valley, and almost all of those bordering the Connecticut River. When it is realized that a rate exceeding $1.00 was high for many rural communities at this time,[11] it will be understood how burdensome were the annual levies in the former towns.

A good many reasons given for the decline of rural New England show a decided lack of perspective on the part of their advocates. One observer soberly maintained that a large part of her troubles could be ascribed to the characteristics of the much abused Puritans: these were an illiberal set of men, too narrow to succeed and hence forced to make way for the more liberal Irish and French Canadians, or the more desirable Scandinavians.[12]

Other commentators attributed the unhappy condition of this area to the miserable dietary habits of its inhabitants. High on the list of the hill-country housewife's culinary shortcom-

[9] George F. Wells, "The Status of Rural Vermont, 1903," pp. 88-89.

[10] Those laying taxes for village improvement are excluded in the tabulation. For further description see George F. Wells, "The Status of Rural Vermont, 1903," pp. 82-83.

[11] *Ibid.*, p. 83.

[12] Brewer, "Is It True that Farming Is Declining in New England?" p. 308.

ings was her custom of cooking everything possible in grease. Warmed-up potatoes, a mainstay for both breakfast and supper, were practically always fried. Whenever she could possibly do so, she cooked the meat in a skillet. Instead of producing the light and nourishing breads which Europeans had enjoyed for generations, she took lumps of uncooked, unleavened dough, and fried them in a dyspeptic grease. Rather than accept in their pristine state the succulent fruits provided by nature, she sealed them between hard covers again concocted of unleavened dough, named the "horrific result" a pie, and made it, in incredible variety, the staple food of the meal.[13] Moreover, her menus were poorly planned and very limited; she used few vegetables, and was far too disposed to rely wholly upon meat, potatoes, and pie.[14] One diagnostician of the nineties summed it all up in this diatribe:

> Their diet is the most unwholesome possible. Pork in one form or another is its staple—"meat" and pork, "hearty-food" and pork are used as synonyms; and pork is supplemented with hot cream-of-tartar and saleratus biscuit, doughnuts, and pies. The sanitary, not to mention the epicurean possibilities of meats, vegetables, mushrooms, and fruits within easy reach either are not known or ignored. The results are just what might be expected: the men are listless, sullen, stolid. Chronic dyspepsia and other internal disorders are common. . . . The women . . . take refuge . . . in floods of unwholesome patent medicines and in the nostrums of quacks who appear at regular intervals down at the village. . . . Small wonder that as a class they are pale, haggard, prematurely old, shrill, ill-tempered and inefficient in their housekeeping.[15]

Not only what he ate, but what he drank, was blamed for the failings of the New England husbandman. It was urged in many instances that overindulgence in good old New England cider had brought on his ruin. Its pernicious influence was de-

[13] Munro, "Pie and E Pluribus," p. 300.

[14] Rollins, "New Hampshire's Opportunity," p. 535.

[15] A. F. Sanborn, "The Future of Rural New England," p. 75. See also Hartt, "New England, the National Wallflower," p. 44; U. S. Commission on Country Life, *Report*, p. 100.

plorable, maintained the Governor of New Hampshire in 1837. "The constant use of common cider from apples several times a day leads rapidly to drunkenness," he warned.[16] In 1893, a reformer reported thankfully that there were but a third as many cider mills in New Hampshire as there had been a short while before.

> It was the great curse upon New Hampshire a few years ago [he declared]. A gentleman told me—an old man now—that he used to live in the town of Hill when he was a boy and that he could go out on top of his father's buildings . . . and see seventeen farms that had been drunk up by their occupants.[17]

There is no proof, however, that the hill country digestive organs, whether or not oppressed by a plethora of pie and cider, functioned any more poorly than those in other sections of the country. In the United States as a whole at this time, the diet and cooking were poor, while the drinking of hard liquor was common, yet agriculture in the West throve, and the cities continued to grow. Except in certain individual cases, one cannot, therefore, ascribe to these habits the abandoned hillside homes.

The climate of New England was frequently mentioned as bringing about dissatisfaction with farm life there. A few writers felt that its vagaries imposed hardships on the inhabitants, that its sudden changes, for instance, often made it difficult for the farmer to carry out his plans. He could never be sure of getting his hay dry before it rained. The climate of the region has been made famous by the statement attributed to Mark Twain, "If you don't like the weather in the morning, just wait till afternoon," while Rufus Choate has been credited with saying,

> Take the climate of New England, in summer, hot today, cold tomorrow. . . . Now so dry as to kill all the beans in New Hampshire, then floods carrying off all the dams and bridges in the Penobscot

[16] Hill, *Address before the Merrimack County Agricultural Society*, p. 8.
[17] Goodell, "Agriculture in New Hampshire," pp. 43-44.

and Androscoggin. Snow in Portsmouth in July and the next day a man and a yoke of oxen killed by lightning in Rhode Island. You would think the world was coming to an end.[18]

While such descriptions make entertaining reading, they must be taken with a grain or two of salt. The sudden changes in New England weather never seriously affected tenure on the hill country farm, although an infrequent "June frost" or "spring freshet" undoubtedly tended to increase the feeling of discontent.

From the long and bitter winter season, however, the New England farmer did, and still does, encounter real and serious hindrances. Its severity augmented the sense of isolation and loneliness. Dwellers on the hills were sometimes cut off from the outside world for days at a time when the north wind obliterated the roads with great drifts of snow.[19] The winters were a particular trial to the women of the family. The cold and the blocked roads made them practically prisoners for months, for it required not a little hardihood to get about after the snow came.[20]

The thing one resents about winter [wrote one woman from a farm in Woodstock, Vermont], is its inactivity, the perpetual sameness of ice-armored hills and snow-blanketed woods. . . . There is no life but in the swing of the winds, the mad dance of eddies, the arrival of still more snow.[21]

During the cold months, too, the farmer was forced to devote a considerable portion of every day's labor in combating the hostile conditions imposed by the weather. He must secure fuel for his fires, shovel snow, chop out water holes, and thaw frozen pipes, and even lay up a store of ice to alleviate the rigors of the hot summer. Furthermore, the New England win-

[18] Kate Sanborn, *Adopting an Abandoned Farm*, p. 111.

[19] One observer noted, "There are more abandoned farms on the north slopes than on the south ones."—Curtis, "A Prosperous New Hampshire Farmer," p. 141.

[20] Johnson, "The Deserted Homes of New England," p. 221.

[21] Greene, "The End of a Long Winter," p. 45.

ter necessitated the housing of all livestock during several months of the year, which entailed the construction of warm barns and the costly storage of sustenance for winter feed.

Other critics ascribed the decline of agriculture in rural New England to a lessened fertility of the soil. The farmers of Vermont were accused of mining their land rather than cultivating it[22] and a local history of a New Hampshire town noted the following five stages in the life of a farm: first the owner cleared his land; then he improved it; then he made a good living off it; then he "skinned" it; finally he deserted it.[23] Many discussions asserted that once prosperous farm lands had been exhausted by a thrift that had refused sufficient expenditure for needed fertilizer.[24] There was, however, no evidence to show that the hill-country soils had any less plant food than they possessed when first cultivated. The Chief of the Division of Soils testified before the United States Industrial Commission in 1901 that so far as the chemical analysis would show, they had all the essential ingredients for crop production.[25] While it is true that their immediate production capacity had been lowered through poor farming, their permanent capacity was not seriously impaired, and with careful attention they could be made to produce good crops.[26] Thus it is doubtful if any farmers deserted their places because of a completely exhausted soil, although the diminished productiveness probably acted as

[22] Stilwell, Migration from Vermont, p. 126.

[23] Moore, *History of Candia, Rockingham County, New Hampshire*, p. 435.

[24] York, "New England, the Citadel of Thrift," p. 20; Rollins, "The Abandoned Farms of New Hampshire," p. 531.

[25] Testimony of Milton Whitney, Chief of the Division of Soils, U. S. Department of Agriculture, at a hearing before the U. S. Industrial Commission, at Washington, March 12, 1901. In U. S. Industrial Commission, *Report*, Vol. X, Part 2, p. 866.

[26] The Dean of the State Agricultural College of the University of Vermont pointed out in 1912 that the lowered production capacity of Vermont soils had a number of different causes, but that it was remediable by tillage, drainage, rotation, green manuring, the use of farm manure, or the employment of ashes, lime, or marl.—Hills, "The Conservation of the Fertility of the Soil of Vermont," p. 83.

a minor influence in persuading a number to depart.[27]

More important than these minor factors in the decline of rural New England, however, were the three basic causes, the first of which, the location of the majority of the abandoned farms, was the very root of the whole situation.

### The Hill Farm

The question which immediately presents itself is: Why were the hill farms ever occupied? Why did the shrewd pioneer from the lowlands of southern New England choose to settle first the higher portions of the township he entered, although they did not offer the advantages of smooth level acreage and often were to be approached only by a steep climb up some precipitous hill? An understanding of conditions in the hill country during its period of settlement will explain his decision.

When the pioneers were entering the hill country, a farm on the uplands was considered preferable to a low-lying valley location. The narrow valleys were often subject to destructive spring floods and to severe freshets after heavy rainstorms, while the land along the streams was apt to be swampy. Beavers had built dams across them, and these obstructions held back the water, often flooding areas which later on became dry and cultivable. In addition, their clogged courses were frequently the resting places of trunks of huge trees brought down by floods and dropped on the more level portion of the stream beds. Willows, alders, and other moisture-loving trees, furthermore, grew closely together along the banks, and beneath was a rank network of herbs and grass. Through these impediments the water wandered in many curves and divisions, oftentimes cutting up the valley lands and rendering them unfit for farming purposes. Not until the tangled forest growth had been

[27] For a further discussion of this subject, see J. H. Putnam, "The Depopulation of Our Rural Districts," p. 136; also Vermont Commission on Country Life, *News Letter*, July, 1930.

removed and the warmth and sunshine let in did the lower valley locations appeal to the average immigrant into northern New England.[28]

Accordingly, the pioneer farmer sought the higher ground, with land that was dry and could be quickly brought into a state of cultivation. On the hill sites a crop of grain might be grown the first year after the removal of timber, and though the soil often proved to be rocky and shallow, it served to produce good crops for a long time.

In the localities with which I am familiar [explained a Vermont farmer in the state agricultural report for 1883], all of the intervale land and most of that in the valleys which is now most valuable, was to the first settler entirely worthless so far as being capable of supplying their present needs, while what is now rocky pasture, worth only a few dollars per acre, was then the fertile fields from which all the wants of the family in food and clothing were supplied.[29]

Land on the hills was easier to clear than the tangled woods in the valleys. The growth was sparser, and the stumps decayed sooner than on the lower, wet ground.[30] The contour of the region was in some cases utilized to facilitate its clearing. In the early part of the nineteenth century—or so the story goes—one efficient pioneer, by name John Townsend, cleared his hill farm in Bethel, Vermont, in quick fashion. He came from Massachusetts to Bethel on foot, carrying a knapsack, with an axe and two dollars in money. With the money he bought two gallons of rum and invited his neighbors in for a

[28] H. H. Vail, *Pomfret, Vermont*, p. 140; Towle, "Farming Past and Present," p. 161; A. P. Hitchcock, "Abandoned Farms," p. 632.

[29] Pember, "Our Hill Farms," p. 363.

[30] For many years the better-drained hill farms were superior to those in the lowlands in the production of grain. The Vermont agricultural report for 1887-88 pointed out in 1887 that there were many hill farmers who had always raised their own wheat, while up to a few years previous it had been difficult to raise it in the valleys.—Fish, "Ought Vermont Farmers to Raise the Grain They Consume?" p. 169.

[31] *History of Hillsborough County, New Hampshire*, p. 405.

chopping bee. They began cutting at the lowest portion of the farm and worked up the steep hillside, notching each tree deep on the lower side, until they reached the top. At this point, they cut a large beech, which felled the tree below, which, in turn, knocked down the tree below that. Thus, like a row of dominoes set up on an inclined plane, the trees collapsed one after another down the hillside. Two gallons of New England rum had covered much ground.[31]

There were still other factors which influenced the early settlers to carve their farms from hill land. The opinion prevailed then that since these sections were quickly covered with a vegetable mold formed from leaves falling for a long succession of years, they would be more friendly to every species of vegetation than the lowlands, which often grew to pine.[32] This belief was erroneous, however, for as soon as the valley lands were cultivated, they proved equally as productive as, and in most cases more productive than, the rough hill territory. In addition, the hard timber on the hills furnished abundant material for fuel, and for making charcoal and potash, while from the large growths of maple, syrup and sugar could be produced.[33]

The fear of loneliness and the desire for protection also entered into the selection of the farm site, particularly with the earliest settlers, who came into northern New England before the Revolutionary War. From a house built on a hill, the pioneer had an outlook from which he could see the next clearing[34]—and at a time when the surrounding woods might harbor Indians of uncertain attitude, this was an advantage, for from

[31] After the trees were somewhat dried out, a fire was set which consumed the tops. The logs were then drawn together and burned, and thus the first clearing was made.—*Bethel Courier*, July 16, 1931, p. 12.

[32] W. H. Tucker, *History of Hartford, Vermont*, p. 97; Stilwell, Migration from Vermont, pp. 55-56.

[33] Stilwell, Migration from Vermont, p. 56; *History of Hillsborough County, New Hampshire*, p. 405.

[34] Stilwell, Migration from Vermont, p. 56.

such a location he could better signal his neighbor, or fire on possible intruders.[35]

Furthermore, at the time of the settlement of the hill farms, easy transportation and quick communication were not considered essential. The early roads were built along the straightest routes, going over every hill that came in their way, for it was cheaper to take the shortest route than to construct roads along the circuitous valleys where bridges would have to be erected across the meandering streams.[36] The early residents had no fear of climbing hills, even though the horse and wagon made slow progress up steep grades, for on the self-sufficing farms trips to town did not have to be frequent. The hill countrymen were not concerned then with shipping milk to Boston, nor with the problem of hauling Western grain several miles to their farms to feed dairy cows.

It made little difference, too, in the days of the sickle and the scythe, whether the land was smooth and level, or rocky and approaching the perpendicular.[37] The self-sufficient farmer, producing only small amounts of what was necessary to fill his own needs, could do the hand work on rough land with comparatively little inconvenience; but when, at a later day, he had to raise a few crops in large quantities, and machinery was needed; he found that the rough terrain made its use very difficult.

Because of the topography of the ground, the fields which were developed on the hill locations were usually small and irregular. Although there was generally plenty of wood land and pasturage, the amount of tillage land was often insufficient for modern methods of cultivation. The very size and shape of

[35] Eastman, "Farming in the Granite State," p. 1261; *History of Hillsborough County, New Hampshire*, p. 405.

[36] Wilson, "The Roads of Windsor," p. 385.

[37] The steeper hill places have been called "forty-five degree angle farms, armor-plated with boulders."—William H. Dean, "Scenic Farming in Northern New England," p. 38.

these farms, determined largely by the original settlers more than a century ago, proved a serious handicap to the success of agriculture there in later times. The New England farm, as a rule, consists of a certain number of acres of tillage, woodland and pasture, and a good deal of swamp or rocky hillside. As these places were bought and sold, they ordinarily changed hands in their original form. Thus, whenever the farmer in the hill country became hard pressed for more meadow land, he could not buy an extra quarter section of tillage as could the farmer in the West. If he was to buy anything, he was generally forced to purchase a whole neighboring farm. Thrown in with the good land, whether he wanted it or not, were always some acres of pasture covered with scrub wood.[38]

As time went on, the land in the valleys was cleared for farming, and on the whole proved more desirable than the earlier hill locations. When the lower valley reaches had been laid out, continued immigration into northern New England forced the newcomers to go into the more remote hill regions of the towns, and even up into townships much of whose surface might be termed mountainous. It was natural that territory contiguous to that already settled should be occupied, for there was not yet any easy means of transportation to the West. Farms were thus developed which were entirely unfitted to meet with conditions under a commercialized agriculture. But the settlers could not look ahead and foresee a revolutionary change in farming—they were making homes for themselves in a strange country at a time when even the most isolated lands could be made to yield them the simple living they knew.[39] Yet every acre of land unsuited for modern methods of agriculture which was cleared and settled upon in the days of the self-sufficing farm was necessarily destined to become an economic waste. Large numbers of New England farms, ill located or on

[38] *New England Homestead*, Vol. LXXXI, No. 22 (Nov. 27, 1920), p. 3.
[39] *The Food Supply of New England*, p. 4.

rocky land, should never have been utilized for agricultural purposes.[40] That they were, reflected the population pressure which existed at a period when there was no other recourse but farming, when household industries were an important source of revenue, and when men and women lived simply, reared large families, and demanded little.[41]

By the eighties, it was obvious that many hill farms could no longer be operated to advantage. An article in the Vermont agricultural report for 1883 stated the situation in these words:

> Made up as it is of almost barren rocks, soil filled to overflowing with stones and boulders, hillsides steep and inaccessible, so that reclaiming by the plow is impossible and what little vegetation there is seems hardly worth the necessary effort of the stock to obtain it, . . . there is one use that can be made of such land which promises adequate return and that is to let it grow up to forest. It was once covered with timber and time will so cover it again if given the opportunity.[42]

Nevertheless, in a few newer localities, farms were still being carved out of remote hillsides even in this period. A New Hampshire observer lamented in 1872 that he had seen in his travels about the state new houses going up where man should never have invaded, except to remove the resources. The builders purchased their land in these places because it was cheap, but they often had to expend enough in removing the rocks and in making their acres fit for the plow to have bought a farm

[40] Today, experts believe that the 65,500 square miles in the six New England states consist of two more or less distinct classes of land, agricultural land and absolute forest land. More than 60 percent of the total area of New England is classed as forest land, and in the opinion of many foresters the climatic, topographic, and soil conditions are such that at least 50 percent can be economically developed only when utilized for the production of timber. In other words, more than 30,000 square miles of New England is forest land—land upon which agriculture has no business, land which the topographic, climatic, and soil conditions make wholly unfit for farming.—Toumey, "The Woodlot, a Problem for New England Farmers," p. 193-94.

[41] Rossiter, Vermont," p. 444.

[42] Pember, "Our Hill Farms," p. 364.

already redeemed elsewhere, in a more favorable situation.[43]

All the unfavorably located hill farms were not abandoned in this period, however, and some probably never will be. Many a hillside farmer clung tenaciously to his homestead. There were many reasons for this—affection for familiar surroundings, independence of spirit, love of the hills, some sense of freedom that far hill vistas give, elbowroom, a home from which a man can neither be starved nor frozen as long as a crop will grow and wood burn. These have definite values in the scheme of life,[44] as the depression has shown. To many a hill-countryman there are important elements which go to make farming not merely a means to earn a living, but a way of life.[45]

The hill village as well as the hill farm found itself in a disadvantageous situation under modern conditions. In the earlier period, when steep roads did not matter and connection with the railroad was undreamed of, little rural communities sprang up on the heights in locations which often possessed no natural advantages to support a permanent population. Frequently a village was started around the first meeting house, the first school, and the first tavern,[46] which for the sake of convenience were usually placed as near as possible to the geographical center of the town. In later years, these settlements often had no attractions to offer other than their sightliness, as they looked over ridge after ridge to the mountain range. As early as 1871 a writer noted in the *Vermont Historical Gazetteer* that many of the hill villages were in an unfortunate plight. Already it seemed a singular fact that the first settlers should have so frequently pitched on the highest plains and plateaus of their respective towns, miles from any

[43] Lawrence, "The New Departure," p. 260.

[44] Professor Arthur Wallace Peach, Chairman, Vermont Commission on Country Life, "Preliminary Report of the Committee on Vermont Traditions and Ideals," in Vermont Commission on Country Life, *News Letter* (December, 1929).

[45] Kent, "Typical Vermonters," p. 102.

[46] Stilwell, Migration from Vermont, p. 55; Hubbard and Dartt, *History of the Town of Springfield, Vermont*, pp. 161-62.

water power, for their villages, which they evidently supposed must become centers of population and seats of public business.[47]

The process by which business left the hill villages and went down into the valleys was much the same in the majority of northern New England townships. A gristmill and sawmill were found to be an indispensable necessity, and they could be established only near a waterfall down in the valley. These of themselves were unavoidable places of resort, and afforded the most favorable opportunities for seeing people from other parts of the town. Hence to these locations there soon followed the shoemaker, the blacksmith, the tavern keeper, and the merchant. Once the place was started, it began to draw away from the population of the hill settlement. Few villages survived if they were located far from good water power.[48] The fate of Stratton, a hill village in the town of that name, in Windham County, southeastern Vermont, illustrates what happened to many. In the "Log Cabin Campaign" of 1840, Daniel Webster delivered an oration on its outskirts before an assemblage of more than 20,000 people from the surrounding countryside. Fifty years later, the meadow where Webster stood had grown up to trees, some of them more than forty years old; the house he had occupied was no longer standing, and scarcely a vestige of the village remained.[49]

In the twenties and thirties the hill farm and the hill village were considered to be favorably situated; half a century later people were amazed that these locations were ever chosen. This difference in opinion was caused in great part by the changes in the hill country worked by the attractions of farm lands in the West and the overwhelming competition of farm products from that territory.

[47] D. P. Thompson, "Randolph," in the *Vermont Historical Gazetteer*, II (1871), 972.

[48] *Ibid.*

[49] Valentine, *Report of the Commissioner of Agriculture*, p. 10.

## The West as a Factor

In the years from 1830 to 1870, as we have seen, ambitious farm youths, as well as dissatisfied hill-country farmers and their families, migrated to the new Western lands in such large numbers that their departure proved a serious drain upon the rural population of the region, "a loss," declared the Vermont agricultural report in 1879, "too great to be borne without damage."[50] The emigration continued during this period, but with lessening intensity as the better lands were taken up.

The advertisements of the railroad companies still appeared in the farm periodicals. In 1874, for instance, the Burlington and Missouri River Railroad offered Iowan and Nebraskan lands for sale at prices ranging from $3.00 to $10.00 an acre. The company boasted,

> Products from these lands will pay for land and improvements several times over within their credit of ten years, with nothing to pay for four years but 6 percent annual interest . . . [and] the mildness of the climate and fertility of the soil is such that the settler can pay for his farm from the products raised upon it long before the time when the principal becomes due.[51]

A few hill-country husbandmen responded to these advertisements more than literally and went West penniless, expecting to live on the land. The *Vermont Agriculturist* for June, 1878, contained the item that Mr. Webster of Morrisville, with his wife and three children under six years of age had started for Atchinson, Kansas, leaving town with just their tickets in their pockets and without a single penny, though with enough provisions to last them on their journey.[52]

The Far West was still a lure to the New England youth.

> The modern young farmer [queried the Secretary of the Maine Board of Agriculture in 1872], does he take his pack and axe and

[50] Seeley, "The Yesterday, the Today, and the Tomorrow of Vermont Agriculture," p. 22. See also the Maine Board of Agriculture report for 1872, p. 377.

[51] *American Agriculturist*, XXXIII (January, 1874), 36; XXXIII (May, 1874), 104.

[52] *Vermont Agriculturist*, Vol. II, No. 1 (June, 1878), p. 5.

start for Aroostook to take up a farm? No. He gets his father or some friend to furnish him money and clothes and then takes the next boat or . . . the next train . . . for California.[53]

It was fondly imagined in the seventies that the arid regions of what was then called The Great American Desert would finally put an end to Western emigration.

Better days are coming [prophesied a professor at Dartmouth College in 1874]. We are . . . assured by the United States surveyors that there is a broad belt of land beyond the 100th meridian of longitude; 1,200 miles in length, extending from Texas to the British Possessions and varying in breadth from three to six hundred miles, which is unfit for cultivation. . . . If Sahara, with its sands, were in the same place, it would not prove a more effectual barrier to emigration and to agriculture.[54]

This hope, however, was doomed to disappointment, for dry farming and reclamation by irrigation caused this theory to be abandoned—at least, until the recent drouths there.

While none of the northern New England states reported decreases in population during the nineteenth century except in the Civil War decade, when Maine and New Hampshire suffered losses,[55] the emigration from them was so great that by 1880 a greater proportion of their natives lived outside their boundaries than in the case of any other three states in the country. In that year, the number of native-born Vermonters residing in other states and territories of the Union amounted to 54 percent of the population of the state, a percentage larger in proportion to its population than that moving from any other state. New Hampshire came next with 37 percent of its natives non-resident and Maine was fourth with 27 percent, Ohio having third place with 28 percent.[56]

It was felt that such widespread departure should not go

[53] Maine Board of Agriculture report for 1872, p. 379.

[54] E. D. Sanborn, *History of New Hampshire to the Year 1874*, p. 360.

[55] Maine: 1860, 628,279; 1870, 626,915. New Hampshire: 1860, 326,073; 1870, 318,300.—*World Almanac, 1932*, p. 386. See Appendix 2, Table I, for population statistics.

[56] Howe, "The Farms of Vermont," pp. 184-85.

unchallenged. In spite of the fact that the efforts to combat "Western fever" made in the previous period had been ineffectual, warnings continued to appear both in official and unofficial publications, advising against further Westward emigration. Excerpts from two of these will show the general trend.

"Terrible cyclones and tornadoes sweep over our western plains, dealing death and destruction, and . . . periodical droughts blast the hopes of the pioneer farmer," proclaimed the Maine Board of Agriculture in its 1885 report. Moreover, it continued, many emigrants would not be able to find favorable locations in the West. The report cited the case of one "Down Easter" who journeyed to Nebraska and applied at the Land Office for a quarter section, but, "To his great chagrin, word was sent back that not a single acre of public land could be secured under the provisions of the Homestead Act within thirty miles of the track on either side of the newly constructed railroad."[57]

One returning prodigal, a Vermonter who had emigrated to Dakota, offered words of advice in rhyme:

1

I left the green hills of Vermont
A year ago last Spring,
I had saved a little money,
And I thought 't would be the thing
To go out West and buy a farm,
And work with might and main,
Get rich as Gould or Vanderbilt,
And then come back again.

2

And now I'm back in old Vermont,
I've learned a lesson, too.
I cannot tell you half the ills
And troubles I've been through.
My pocket book is empty,
And I have not got a thing

[57] Maine Board of Agriculture report for 1885, pp. 54-56.

To show for all I've suffered since
A year ago last Spring.

3

. . . In Dakota
I bought a farm and built a house
And sowed my fields with grain,
And waited for the zephyrs
And the gentle falls of rain.
I did not have to wait in vain,
For on one summer day
There came a gentle zephyr
And blew my house away.

4

I watched my fields of growing grain
And figured o'er and o'er
The bounteous gain that I should have
A hundred fold or more;
The gold for which I'd sell my grain,
The mortgage I would pay.
Alas! The "hoppergrasses" came
And carried it away.

5

Before the dreary winter passed
I nearly starved to death,
And in the Spring I gathered up
What few things I had left,
And so by working on the way,
At last, worn out and gaunt,
I found myself once more, thank God,
Again in old Vermont.

• • •

And to the young men of Vermont,
My kind advice would be:
Stick to the green New England hills;
They're good enough for me.[58]

As in the previous period, such warnings deterred few people from leaving the hill country once they became discontented

[58] Vermont Board of Agriculture report for 1891-92, pp. 162-63. These rhymes, by H. W. Stocker, first appeared in the *Boston Globe*.

with their lot there. Economic forces, however, proved more effective. By the nineties the call of the West was being weakened by the rise in the price of land, which occurred as the best sections were laid out in homesteads. "The fertile lands in the West are now owned to the very edge of the desert," declared a New Hampshire citizen in 1890.[59] Four years later, the Massachusetts Board of Agriculture reported, "Today, a boy in Illinois who desires a farm must pay $100 an acre for a good quarter section, or $10,000; . . . farms in central Iowa command $50 an acre."[60] No longer was New England flooded with stories of fertile land in the West to be had "for a song."

The West never lacked a rejoinder to the arguments set forth by public-spirited citizens of the hill country in their endeavors to persuade their fellow-countrymen to remain at home. One favorite anecdote was the yarn of the Minnesota Vermonter, who said,

> I know Vermont and I know Minnesota. My father had three sons and two of us came to Minnesota. Last year, I went home to the old farm and in the morning, I went out to look at the fields. When I came in, I said to my brother who had stayed at home, "How are you getting on, John?"
>
> "Oh," he answered, "we manage to get a living and that is about all."
>
> "Why, John!" I said, "I don't wonder that you are poor. If I had a man in my employ who would reap a field of oats and leave as much

[59] Brewer, *The Brighter Side of New England Agriculture*, pp. 9-10.

New England had long anticipated the time when the Western lands would be filled up. Then, prophesied the United States Department of Agriculture in 1870, "The young men of New England may be content to stay at home and enjoy the advantages of markets which fully counterbalance the fertility of western lands a thousand miles away from the mouths to be fed by their products."—U. S. Department of Agriculture, report for 1870, p. 267.

[60] J. W. Sanborn, "Comparison of Eastern and Western Farming," p. 175.

This rise in land values meant an increase in overhead charges and to those who now purchased farms it meant a consequent increase in the cost of production.—H. B. Hall, A Description of Rural Life and Labor in Massachusetts at Four Periods, p. 12. For further discussion of the effect on New England of the increasing price in western land, see Taylor, "Why Go West?" Phelps, "Is There a Decadence of New England Agriculture?" p. 383; *New England Homestead*, LII (May 26, 1906), 657.

standing as there is in that field yonder, I would discharge him at once."

"Why, Bill," exclaimed my brother, "that's the crop!"[61]

It was plainly evident by the last quarter of the century that the West could produce crops in far greater abundance and at much less cost than northern New England. The varied and uneven soils tilled by the hill farmer could not compete with the level and uniform prairie areas in the production of cereal grains and the forage crops.[62] "Montana and Wyoming, marauding giants, have reached across the continent and stolen our 'beef critters,'" lamented a New England observer at the end of the century. "Minnesota and Iowa have sown tares amongst our wheat."[63] Western competition in farm production, coupled with cheap transportation, proved more disastrous to rural New England than the loss of the thousands of citizens who had migrated to that region.

It is getting worse every year with no prospect of getting better [sighed the editor of a Rutland, Vermont, newspaper in 1879]. . . . The situation is not the temporary result of hard times as that which followed the panic of 1873. . . . It is a permanent change in our civilization that was inevitable the moment that the railroads reached the uttermost parts of the West and solved the problem of quick and cheap transportation to the East of agricultural products.[64]

Almost in the same breath that the New England hill farmer complained of Western competition, he spoke of farm machinery. The two were closely related. The more farm machinery that was used, the fewer farmers it took to feed the country's population. Before the 1830's more than 80 percent of the

[61] Henry B. Whipple, "Recollections of Persons and Events in the History of Minnesota," *Minnesota Historical Society Collections*, IX, 577, quoted in Stilwell, Migration from Vermont, p. 237.

[62] The field of the New England hill farm was not sufficiently uniform in soil to produce the same crop with equal success over even a small acreage.—*New England: What It Is and What It Is To Be*, p. 178.

[63] Hartt, "A New England Hill Town," p. 570. For further material, see Hartt, "Regeneration of Rural New England," p. 504.

[64] *Rutland Herald and Globe*, Aug. 28, 1879, quoted in Dwinell, "Vermont as a Home," p. 263.

population was agricultural. By the sixties, as the use of labor-saving machinery became more widespread, the proportion had declined to fifty percent, and this number, in addition to raising enough to feed the United States, was producing for the rapidly increasing export trade. The percentage continued to drop steadily, until by 1920, only 33⅓ percent of the population was engaged in agriculture.[65]

The hill country made use of labor-saving devices as far as she could. Up to the invention of the bigger farm machines, such as the complete wheat harvester, the corn harvester, and the tractor, she had not been slow in adopting the new farm implements and farm machinery, although she viewed them with some suspicion at first.[66] For example, it was not until the middle fifties that the mowing machine was introduced to any extent into New England, although, remarked the *New England Farmer* in 1854, "They have been used by western farmers for some six years."[67] Its adoption was followed in the later decades of the century by the wider use of some of the less cumbersome inventions in farm machinery, such as the horse rake, the manure spreader, and the seed-sower.[68]

The fields of the average hill farm, however, were so rough in contour and so irregular in perimeter that few farmers could employ the bigger and more elaborate types of farm machinery which were being introduced in the West. The smaller and cheaper pieces they could buy and use, and on the larger, level valley meadows the bigger and more intricate machines could be utilized if the farmer could afford to purchase them, but they were not feasible on hillside places. Indeed, the tilled acreage of the average New England farm was so small that large machinery could often be used no more than five days out of the entire year.[69]

[65] Cance, "The New England Farm of the Future," p. 6. Between 1829-30 and 1895-96, the number of hours of farm labor necessary to produce 20 bushels of wheat declined from 62½ to 3⅓.—Carver, "The Vanishing Frontier."

[66] Joslin *et al*, *A History of the Town of Poultney, Vermont*, p. 80.

[67] *New England Farmer*, VI (December, 1854), 571.

[68] Walker, *Collection of Addresses*, Vol. I, No. 7, p. 32.

[69] Ray, "Putting the New England Farm on a Business Basis," p. 9.

# VII

## THE LURE OF THE CITY

*Come back to your mother, ye children for shame!*
*Who have wandered like truants, for riches or fame.*
*With a smile on her face, and a sprig in her cap,*
*She calls you to feast from her bountiful lap.*[1]

THE movement from country to city has been deplored in nearly every civilized country in every age. Plato expressed the hope that there would never be any large cities. Xenophon complained that the Greeks loved the city rather than the village. Varro was sarcastic in his testimony that the Romans preferred the circus to the cornfield. Strabo saw the danger when the farmers from the outlying districts began moving into the Eternal City. The Roman Senate passed laws to stem the tide. The elder Mirabeau was eloquent in his recommendations of country life and pathetic in his delineation of the destiny of the farm people who moved to town, and Jefferson deprecated the influence of the city.[2]

In New England, the cry that people were leaving the country and moving into urban areas was not heard with any insistency until the last quarter of the nineteenth century. From that time to this, city attraction has been the indirect cause, and in numerous cases the direct cause, for the abandonment of countless farms and the decline in population of many a hill village.

### Urban Attraction

Up to the seventies, the appeal of the West was much stronger than that of the growing cities of southern New England.[3] As

[1] Vermont Board of Agriculture report for 1891-92, p. 102.

[2] Hibbard, "The Decline in Rural Population," p. 85: Lundquist and Carver, *Principles of Rural Sociology*, p. 81.

[3] Nathan Allen, *Changes in New England Population*, p. 13.

the former region became filled up, however, its influence in persuading northern New Englanders to migrate began to decline. "There is little disposition *now* to go West, among our people," declared an editorial in the January 20, 1875 issue of the *Farmers' Cabinet,* a country newspaper published in a hill town in southern New Hampshire.[4] On the other hand, as the number of economic opportunities in the urban areas grew, the drawing power of those regions increased. "It is the attraction of the city which is at present the chief cause of the depopulation of the New England country," observed a writer in the *Cosmopolitan* in 1893.[5]

This shift in the center of attraction is well illustrated by a comparison of the statistics of migration from Vermont for 1850 with those for 1900. In 1850 most of the Vermonters who left their state moved West, the largest group locating in upstate New York. The smallest class was that which went to the cities in the East. By 1900, however, the number of Vermont-born residents of New York was considerably less than one-half the total in 1850, while the sum of those living in the New England states other than Vermont had more than doubled. This development was particularly noticeable in urban southern New England. The number of Vermonters in Massachusetts rose from less than 18,000 in 1850 to more than 40,000 in 1900; in Connecticut, the amount tripled; in Rhode Island, it increased five times. Even in the adjoining state of New Hampshire, where Vermonters were generally to be found in the growing factory towns along the Merrimack, it nearly doubled.[6]

All of northern New England participated in this movement of population from a predominantly rural hill country into the urban states immediately to the south. In 1880 there were 163,325 natives of the hill country residing in the urban states,

[4] *Farmers' Cabinet,* Jan. 20, 1875, p. 2.

[5] Johnson, "The Deserted Homes of New England," p. 218. See also U. S. Industrial Commission, Report, Vol. X, Part 3, p. 866.

[6] Rossiter, "Vermont," p. 427. See also Appendix, p. 000.

while by 1900, there were 223,496, an increase of 36.8 percent in two decades. The migration from urban to rural New England, on the other hand, was much less impressive. In 1880 there were 43,049 natives of the three southern states living in the three northern, and by the end of this period the number had increased to but 56,376, only one-fourth the total of those who had moved in the opposite direction.[7]

As in the case of the West, it was the young people whom the city attracted in the greatest numbers. While the previous period had witnessed the departure of many hill-country girls to find employment in the factories of southern New England, most of their brothers had gone West; in the last quarter of the century, however, the boys, too, flocked to the cities. The *Nation* doubted in 1899 whether even prosperous farming would keep the New England farm youth from rushing to the stores and factories of the great towns in search of society, of the theater, of the picture gallery, and the public library.[8]

One result of this movement of the young people from the New England hills was a noticeable increase during the last half of the century in the proportion of older people in the region. A comparison of the composition of the population of Vermont in 1850 and in 1900 will illustrate the extent of this tendency. By separating the entire population of the state, as given in the censuses for these two years, into four age groups, it was found that the number of persons in each formed the following percentages of the total:[9]

| Age Classification | Percentage in 1850 | Percentage in 1900 |
|---|---|---|
| Under one year | 2.1 | 2.0 |
| One year and under five years | 9.9 | 7.6 |
| Five and under fifty years | 73.9 | 69.0 |
| Fifty years and over | 14.1 | 21.4 |

[7] Artman, *The Industrial Structure of New England*, p. 13.
[8] *Nation*, XLIX (1889), 445.
[9] Rossiter, "Vermont," p. 425.

The most significant change to be noted in the above table is the marked increase in the proportion of elderly persons. This advanced from a little more than one-seventh of the total population in 1850 to more than one-fifth that in 1900, while in some counties it even rose to one-quarter. Thus at the end of the period 21.4 percent of the inhabitants of Vermont were fifty years of age and over, although the proportion for the country as a whole was but 13.2 percent.[10]

Another indication of the drain of young blood from the hill country is shown in the census of 1890, in which the percentage of deaths due to advanced years was shown to be greater in the New England hills and plateaus than in any other section of the country. In this region old age caused 45.4 out of 1,000 deaths from known causes during the census year 1890, whereas in the North Atlantic coast region the proportion of deaths due to this factor was 31.74 per 1,000; in the prairie areas, 18.12 per 1,000; in the Pacific coast territory, 13.93; and in the Western plains, only 7.20.[11] By the end of the period, the proportion of older people in the hill country had become so marked that Rollin Lynde Hartt observed to one of the inhabitants of a hill town in western Massachusetts in 1899, "It seems to me that you hill folk never die," to which the waggish Yankee replied, "Weal, 't'is 'baout the larst thing we dew dew, I swum!"[12]

The departure of the young people from rural New England was an important factor in the abandonment of many farms.

[10] *Ibid.*

[11] Reports of the Eleventh Census, Vol. XVII, Part I, p. 313. The prairie areas included eastern Nebraska, Kansas, etc.; the Western plains included western Nebraska, Kansas, Texas, eastern Colorado, New Mexico, and Montana.

[12] Hartt, "A New England Hill Town," p. 570. The high proportion of older people on the New England farms continued. By 1920, there was a relatively large percentage of young men among the farm operators in other sections of the country, but in New England, nearly two-thirds of them were 45 years of age or over. In the United States as a whole, 51.8 percent of the farm operators were under 45 years of age, while in New England only 33.8 percent were in that age grouping.—Truesdell, *Farm Population of the United States*, p. 66.

After they were gone, it was increasingly difficult for the "old folks" to carry on the place. A catalogue issued by the Massachusetts Board of Agriculture in 1900, listing the farms that were for sale in the Commonwealth, also stated the causes for their being on the market in 117 out of the 136 cases. More than one-third of the owners gave old age, failing health, or inability to work as the reason for wishing to sell their property.[13]

Again public authorities and other leading citizens bent their efforts to dissuade the young people from leaving the hill country. As in the previous period, dreadful pictures were painted of the city and its influence. The Maine Board of Agriculture cautioned in 1872:

> The farm youth sees only the dazzling, gaudy side of city life. They see not that for every success there are scores, nay hundreds, who sink into darkness and misery. They see not the numberless pitfalls of city life into which they sink, nor the terribleness of the wreck to both body and soul of the great majority of unfortunate young men who are thus deceived . . .[14]

while a few years later the *Farmers' Cabinet,* the New Hampshire periodical referred to above, expatiated upon the transiency of the glories of the city:

> A large city may seem to prosper for a season, but history assures us that in time, the accumulation of vice overtake it, and it goes down. . . . In the cities, your children degenerate.[15]

In the midst of the warnings, a few constructive suggestions were offered. Rather than endeavor to keep young men on the farm by attempting to frighten them with stories of the evils of city life, it would be better to try to make the farm work more attractive, counseled the New Hampshire Board of Agriculture in 1871. Instill in the boys a feeling of proprietorship, it urged.

[13] Edward A. Wright, "The Hill Town Problem," p. 624.
[14] Goodale, "Changes in Farming," p. 342.
[15] *Farmers' Cabinet,* Jan. 20, 1875, p. 2.

Instead of making the boy hoe all day on the hillside for you, let him hoe half a day there occasionally for himself. You have land enough. Plow up an acre for the boy and let him have what he raises[16] and you will soon find that what leisure time he has, will be spent there instead of running to the village.[17]

Despite the efforts to keep the young people on the farms, their exodus continued. Nor were they the only ones leaving for the city, for the "hired man" was also succumbing to the call of the better economic advantages to be found in southern New England and other nearby urban areas. The report of the United States Department of Agriculture for 1867 noted that although the growth of manufacturing in New Hampshire, particularly in the Merrimack valley, had rendered farm property more valuable in the immediate vicinity and to some extent in more distant localities, this was partially counterbalanced by the fact that the enlarged demand for labor in industrial towns was making it increasingly difficult to procure dependable hired help.[18] In the next century, this problem had become so acute that it was a matter of considerable discussion.[19]

The inadequacy of the educational facilities available in the rural areas of northern New England at this time was a source of distress to many intelligent and ambitious farm parents. The school year was short. The schoolhouses were lonesome little buildings, set down in whatever spot was most conveniently central for the district, with scant regard for the surroundings. The furnishings were very rude, and modern helps for study

[16] A forerunner of one of the plans advocated in the 4-H Club work. See below, pp. 255-57.

[17] J. F. Lawrence, in the New Hampshire Board of Agriculture report for 1871, quoted in the U. S. Department of Agriculture report for 1871, pp 384-85.

[18] U. S. Department of Agriculture report for 1867, p. 102.

[19] See below, pp. 350-54.

noticeable by their absence. The teachers were poorly paid and untrained, and frequently had little more "schooling" than their more advanced pupils. Often they had no interest in teaching beyond gaining a little money to help pay the home taxes or the interest on the farm mortgage.[20] The sanitary arrangements were rudimentary. During the cold weather, the room was heated by a single stove, and the pupils seated next to it were uncomfortably warm, while those at a distance were cold. No wonder progressive parents thought with envy of the advantages offered in village and city schools! While it is unlikely that many people gave up their hill farms just to be closer to better schools for their children, this desire was a contributary cause in countless cases.

The concentration of industry in a relatively few big concerns in the larger cities of the East was a further factor in the decline of the hill country. Not only did it offer opportunities which drew the young people away from the farms, but it also tended to kill the local industries in the hill-country village. In 1830 almost every stream in northern New England had its score of millponds, each furnishing power for a local industry. Some of these, to be sure, were very modest affairs, in many cases scarcely giving employment for more than a single family, yet even to this small extent they provided a market for the surplus of neighboring farms.[21]

During the following century, however, most of these little firms were forced out of business. The town of Sheffield, in the hills of western Massachusetts, for example, possessed just prior to 1830 two gristmills, five sawmills, two carding machines, two clothiers' works, three tanneries, one manufactory of hats, two cabinetmakers' shops, several limekilns, several blacksmiths and wagonmakers, and according to the old *Berk-*

[20] Johnson, "The Deserted Homes of New England," p. 222.
[21] Haskell, "New England's Iron Breed Passes," p. 36.

*shire County History,* "very much to be regretted, one extensive distillery." Between 1830 and 1930, Sheffield lost nearly 800 of its 2,500 population, and all its industries, including the distillery, save one lime works, a sleepy gristmill, and a small plant which ground marble dust.[22]

The development of large-scale factory methods took away from the hill-country village its very lifeblood, for when the local industry was forced to close, people moved away, the village stores cut down their stock, and the hill-country farmer had to travel to a bigger village down in the valley to purchase whatever he needed. Moreover, the departure of the local manufactories deprived the farmer of a possible opening for employment in the seasons when the demands of farm work were slack. Of more vital importance, however, was the fact that when these little establishments disappeared, the farmer in the inland and upland towns of New England lost the home market which they had given him, and upon which he had become more and more dependent.[23]

### Isolation

The growth of the urban population in near-by southern New England and the steady decline in rural population in the hill country made the families on the farms feel oppressed by an increasing sense of isolation. The loneliness of the remote places, situated in a highland valley up in the hills, or on the hilltops, led many farm dwellers to wish they lived on more frequented routes. If their home was the last on the road, no

[22] *Berkshire County History,* quoted in the *Boston Herald,* May 19, 1930. In 1901, the Secretary of the Massachusetts Board of Agriculture stated. "The decline of manufacturing industries in the hill towns more than equals the decline of the agricultural industries. The proportion of abandoned wagon shops, shoeshops, saw mills, and small mechanical businesses has far outstripped the abandonment of farms."—George F. Wells, "The Status of Rural Vermont, 1903," p. 62.

[23] Hardy and Henderson, *Description of Connecticut Agriculture,* pp. 46-47; Haskell, "New England's Iron Breed Passes," p. 36; Batchelder, "New Hampshire Agriculture," pp. 272-73.

one even passed by, and, lacking quickening contacts with other people, they were forced to live to themselves.[24] This feeling of isolation was an important, though intangible, element in the abandonment of many such farms in the last quarter of the nineteenth century. There were then no telephone lines to connect the farmhouses of the hill towns, weaving between them a net of fellowship, no automobiles to lessen the distance between the outlying farms and the village, no radio to turn the farm home with a twist of the dial into a concert theater, a vaudeville stage, or a dance hall every evening.

Furthermore, there were as yet no satisfactory Rural Free Delivery facilities to bring the farm family in touch with the outside world. Although this service was inaugurated in the nineties, there were thousands of rural homes in northern New England where, before its spread in the next two decades, mail did not come, on an average, more often than once a week. The farmer in the hill country, who had to go from one to six miles for his letters and papers, felt his remoteness even more keenly when he thought of the services enjoyed by the city dweller, who lived within a short distance from the post office, and yet had his mail brought to his door.[25]

As early as 1858, the loneliness of the New England hill farm was cited as a cause for rural decline. A pamphlet entitled *Farm Life in New England,* published in that year, considered "solitariness" an important influence. "Men are constituted," declared this booklet, "in such a manner that constant social contact is necessary to the healthfulness of their sympathies, the quickness of their intellects and the symmetrical development of their powers."[26]

[24] The farmers as a class had little opportunity to mingle with other groups of people. As Charles Galpin put it: "Farmers have only farmers for neighbors. Farmers live together as pines grow together in pine forests, spared the presence of other kinds of trees."—Galpin, *Rural Social Problems*, pp. 18, 26.

[25] Harriet M. Rice, "The Young Women and the Farm," p. 193.

[26] Holland, *Farm Life in New England*, p. 338.

The women on the hill farm felt its isolation even more than the men.

> The neighbors are so far away [complained a farm woman in 1895 in a Vermont agricultural report]. This is especially hard for the women. The men's work takes them away from home—there is feed, wood and coal to be drawn, usually milk to be carried to the creamery, pork and other products to be marketed and even when they are at work on their land, often they can call to their neighbors at work on the other side of the fence. But with the women it is different. Their duties compel them to stay at home much of the time. There are the three meals a day to be prepared, dishes and milk things to be washed, and the house to be kept clean and in order, washing, ironing and sewing to be done, and often it is impossible to get help. After the necessary work of the day is done, they feel too tired to walk to a neighbor's. They wish that they might live where neighbors weren't so far away, so they could see somebody once in a while.[27]

Two developments during the eighties and nineties were hailed at that time as a means of lessening the isolation of the farms on the northern New England hills. These were the modern bicycle and the trolley line. Jubilant prophecies were made about both. The farmers at the Hillsborough County Agricultural Institute at Peterborough, New Hampshire, were told in 1893,

> The bicycle is a great thing for the farmers. I have never been successful in my few attempts to ride a bicycle; but I am satisfied it is doing a great deal of good. . . . The bicycle is coming to the rescue of the farmers.[28]

[27] Harriet M. Rice, "The Young Women and the Farm," p. 193. For further material on this subject, see Kate Sanborn, *Adopting an Abandoned Farm*, p. 110; "An Englishwoman in the New England Hill Country," p. 244; U. S. Commission on Country Life, *Report*, p. 104; Harrison, "The Abandoned Farms of New Hampshire," p. 154; Paine, "New Hampshire, Not Yet Abandoned," p. 185; Roosevelt, "The Abandoned Farm," p. 939.

[28] Goodell, "Agriculture in New Hampshire," pp. 41-42. Mr. Goodell also pointed out that "When the young men and maidens, and the older men, some of them, ride about our streets on the bicycle, they find rocks, stones, and sandy places and they begin to complain that the roads are not so good as they ought to be. One of the leading manufacturers of bicycles [A. A. Pope] has begun to arouse a sentiment in the country that, I believe, is going to be a great

The hill country was never "rescued" by the bicycle, however, for it was of little use in a region where steep hills abounded.

The development of the trolley line was received with equal enthusiasm. It was believed that the electric railroads would be able to tap areas which the steam lines had not reached when they had gone through this territory. While it was admitted that the trolleys would never mount the steeper hills, it was claimed that they could be constructed up the side valleys, and would thus bring the hill farms nearer an outlet. Tracks laid during the nineties to connect cities in Massachusetts had been found helpful to the rural regions between these urban areas, and hence the trolley was anticipated as a boon to the farmers of northern New England. The secretary of the Vermont Board of Agriculture testified before the United States Industrial Commission on February 14, 1900, "I expect the building . . . of electric roads through Vermont is going to be a most important consideration in the next twenty years. That does away with much of the isolation of farm life."[29] But the next twenty years were to see the development of a new means of communication and transportation[30] which would send the trolley lines that had been extended into the country into receivership.

## The Results of Selective Migration

Those who went away from the hill country were different in type and character from those who remained on the farms.

> The brightest boys have gone to college or have become mechanics or are teaching school or are in trade or have emigrated to the West [lamented a contemporary in the fifties]. There have been taken

thing for the farmers of New Hampshire." Thus, the various automobile associations and auto clubs were not the first to start the "Better-Roads" Movement.

[29] Testimony of Victor I. Spear of Randolph, Vermont, in U. S. Industrial Commission, *Report*, Vol. X, Part 2, p. 402.

[30] See below, pp. 362-64.

directly from the New England farm population its best elements—its quickest intelligence, its most stirring enterprise, its noblest and most ambitious natures.[31]

The migration to the urban districts included three different groups. In the first were those who were merely restless and hungry for excitement. These were happier and more useful in the city, and the countryside could spare them. In the second were those who were born followers rather than leaders, who worked more efficiently and found greater happiness laboring under another man's direction, with a stated income not dependent upon the exercise of their own judgment and enterprise.[32] These were useful helpers on the farms, but their service to society was doubtless greater in the city, where they could work under superior direction.

The last and most important group was made up of young men and women who sought the city because they felt it offered greater opportunities, bigger and more remunerative tasks to be done. Though this class was not especially numerous, it included a large proportion of the most enterprising and energetic of the young people of rural New England. They were the ones that the countryside and the farms could ill afford to spare, for their going often left the rural community without competent leaders and the farmer without adequate help. The ones who were left were for the most part those who were content simply to let things go on in the old way, satisfied with conditions as they had been.[33] It should be realized, however, that not every capable young person in northern New England departed from his native heath. A temperamental predilection

[31] Holland, *Farm Life in New England*, p. 340.

[32] The daily life on the farm was complicated in the extreme. In general, it is easier to learn to do a few things than to learn to do a multitude of things. Thus those who revolted against the strain of having to learn to do a large number of things were likely to leave the country and seek the simpler and less laborious occupations of the city.—Lundquist and Carver, *Principles of Rural Sociology*, p. 13.

[33] Truesdell, *Farm Population of the United States*, p. 13.

for country life, a protective antipathy to city ways, and the inheritance of fertile and well-located farms served to retain on the land and in the villages many men and women of ability and initiative.

Nevertheless, this selective migration, by which the more ambitious and the more mobile[34] elements of the population were drawn to the West and later to the cities of southern New England and New York, had a benumbing effect upon the hill country. As the more energetic emigrated, those left behind were less fitted to cope with altered conditions and increased competition.[35] As *The Forum* described it in 1895, "A steady . . . emigration takes away the young, the hopeful, the ambitious. There remain behind the super-annuated, the feeble, the dull, the stagnant rich who will risk nothing, the ne'er-do-wells who have nothing to risk."[36]

In the more remote rural communities, inbreeding and isolation were producing a degeneracy of the old New England stock. This was brought to the attention of the public for the first time in the nineties, when the results of continual intermarriage among three or four families in a farm neighborhood were described by Rollin Lynde Hartt in his article on "A New England Hill Town," which caused a great stir when it appeared in the *Atlantic Monthly* in 1899. Of the inhabitants of this isolated town, he said,

> Nearly everyone you meet is a Glenn-Glenn: so were his parents and theirs, and theirs, and theirs. He is a Glenn to the $n^{th}$ power. Accordingly, the town abounds in "characters." . . . One of our families is "muffle-chopped." Another whole family is deaf and dumb. The proprietor of the sawmill stands three feet two and one-half inches with

[34] It must be borne in mind that it was not always only the ambitious who went away. In the "more mobile" population, we include the less self-reliant individuals who were glad to remove themselves to the city, where a single transaction geared their dull wits and ineffective powers into the automatic mechanism of a mill or factory.

[35] Johnson, "The Deserted Homes of New England," p. 217.

[36] Henry U. Fletcher, "The Doom of the Small Town," p. 215.

his boots on. Israel Glenn is a giant, measuring seven feet in height. . . . Glenns should stop marrying Glenns. . . . What has happened in the hill country of Alabama and Tennessee is happening in the hill country of New England. We are evolving a race of poor whites.[37]

The good people who took it for granted that country life developed social purity, declared an observer in 1897, probably did not know the true conditions of country life anywhere, certainly not in New England.[38] A sociological study of twenty-one hill towns in southeastern Vermont, conducted just after the turn of the century, bears out this contention. The population of these towns was reported by the investigators as nearly all poor native stock, with a few French Canadians where lumbering was carried on. Sexual relations were found to be especially loose, in all but two of the towns were "nests of immorality" and a "few weak-minded women" were "known to be prostitutes." A special study of poor relief in five typical towns of this group yielded the information that more than a score of families constantly had to be given aid. The causes of their incapacity were given as follows:[39]

| | | | |
|---|---|---|---|
| Mental weakness | 8 | Shiftlessness | 1 |
| Old age | 6 | Blindness | 1 |
| Drink | 3 | Morphine | 1 |
| Widowhood | 3 | Tuberculosis | 1 |

These unfortunate conditions became increasingly prevalent in the isolated "back-hill" regions of New England during the last quarter of the century. Indeed, the investigator of one such remote community reported in 1899 that the number of illegitimate children was so large that a definite amount had been fixed by common consent as the proper one to be paid by the putative father to the parents of the unmarried mother.[40]

[37] Hartt, "A New England Hill Town," pp. 569, 574.

[38] A. F. Sanborn, "The Future of Rural New England," p. 77.

[39] Howard, "Social Problems of Rural New England," p. 471. In 1830, these towns had a combined population of 24,500; eighty years later they had only 13,000 inhabitants, a decrease of 46 percent.—*Ibid.*, p. 472.

[40] Hartt and Morgan, "Our Rural Degeneracy."

## The Psychological Reaction

As the energetic moved away from the less favorably situated farms, leaving them to return to forest or to be occupied by the shiftless, those who remained began to assume the temper and outlook typical of the inhabitants of a waning community. This psychological reaction was intangible and difficult to identify, but its ramifications were so far-flung that they affected the whole body of rural New Englanders.

When a farm neighborhood is filled with the expectation of bigger things and a more numerous population, a feeling of buoyancy prevails, and any signs of decay are vigorously obliterated. Fences are kept up and farmhouses painted. Even when the majority of people in the community realize little in the way of material benefits from chances afoot, there is a sort of psychic participation in well-being. But when the number of inhabitants in a New England hill town fell from more than a thousand to a few hundreds, and when those who had gone, by their very going, created the presumption that they were the more virile and energetic element, each new departure was like a blow in the face to the small remaining population, and the community was proportionately more and more crippled as the next useful citizen died or departed. Over a rural region which was losing strength there began to settle an atmosphere of discouragement and hopelessness. The boys and girls who were born in the neighborhood grew to maturity with the decided conviction that their home was "dead," and that their only claim to progressiveness was dependent upon their departure.

The hill countryman's state of mind is colorfully illustrated in the story told of the writer, Irving Bacheller, whose family migrated from a remote New England farm when Bacheller was a boy. When the author visited the old farm in the early part of the twentieth century, he found a scene of desolation. An air of shiftlessness pervaded the place. Broken shrubbery,

grass, and weeds grew up beside the porch, upon which sat two middle-aged men, in earth-colored trousers, with straggling hair and whiskers. When one of them, a neighbor of the man who was then carrying on the farm, learned that this was Irving Bacheller, the absentee landlord, he remarked in a censorious voice, "You are a long time coming back to the old place. You should have come sooner. It's a shame the Bachellers left this fine farm; if they had stayed here, it would not have looked the way it does now." The other man, after looking at his neighbor and then at Bacheller, observed shrewdly, "Well, neighbor, I guess you are about right. If Irving Bacheller had stayed on the farm, I guess the farm would have looked better, but he would have looked worse."[41]

Shiftlessness is apt to be contagious. When one farmer allowed his place to deteriorate, his neighbors frequently lost incentive to keep their property up. Where this type of person formed the majority in a town, the school buildings and grounds were permitted to deteriorate, the cheapest possible teachers were hired, and the roads were neglected, making social intercourse even more difficult. Indeed, in one hill district in rural New England in the nineties, public sentiment would not allow a jury to find damages against the authorities in case of injuries to travelers from defective highways, "on the ground that the diminished population could not keep them in repair."[42]

[41] Barrett, "Folk Depletion as a Cause of Rural Decline," p. 40.

After a visit to a town in northern New England off the railroad, one sociologist set down his impressions in the following words: "Of the five churches in town, two are dead and three moribund. . . . The hotel, which was formerly maintained, stands bleak and empty; the only social institutions whose statistics run into two figures are the cemeteries, of which there are ten or twelve, for the people appear unwilling to be brought together even in death. As I walked along the village street on a cold December morning, I thoroughly agreed with the man who would rather sell shoestrings and lead pencils at the mouth of a roaring alley where the city pours the surging currents of its life before him, than thrive on buttermilk and country air in the desolation of a depopulated rural community."—Woods, "The Development of Rural Leadership," p. 72.

[42] Currier, "The Decline of Rural New England," p. 386.

The combined effect of all the causes of the decline of rural New England which have been discussed might easily seem so overwhelming as to give the impression that the hill country no longer possessed any occupied farms. So widespread was the publicity given to her troubles that much of the outside world had begun to believe New England to be a place of abandoned farms, ruined churches, schoolhouses fallen into decay, dwindling interests, low morals, and a general social discontent. "Poor New England" was uttered in one breath and "decadent" in another.[43]

The abandonment of the small and isolated hill farms, however, was a sign more of economic readjustment than of decadence.[44] These farms were deserted for the same reason that the potash plants of 1825, the starch factories of 1850, the gristmills of 1875, and the sawmills of 1900 were given up; for the same reason that sheep and wheat raising were discontinued —they had become economically unattractive.[45] When a business, a farm, or a manner of farming proves economically unsound for any considerable number for any considerable length of time, those things are abandoned. The ones who left the submarginal lands generally improved their position. No man was "justified in chaining his life to an impossibility."[46]

And yet, apparently without considering whether or not the unoccupied farms were suitable for cultivation under modern conditions, northern New England entered upon efforts to check the movement away from the hill farms and to persuade people to reoccupy them. With equal effectiveness, King Canute once sat on the edge of the sea and bade the wave cease its motion.

[43] Hurd, "What of the New England Town?" p. 89; Andler, "The New New England," p. 189; Giles, "Is New England Decadent?" p. 991; *Current Affairs*, Vol. XII, No. 37 (Jan. 30, 1922), p. 7.

[44] Statement of Dr. Henry C. Taylor, Director of the Vermont Commission on Country Life, 1928-31, quoted in the *Burlington Free Press*, April 10, 1930.

[45] *Burlington Free Press*, April 10, 1930.

[46] McSparren, "The Eastern Farm," p. 56.

# VIII

## AMELIORATING INFLUENCES

*It was with more or less hesitancy that the proposition was entertained to advertise to the world that within the borders of New Hampshire were hundreds of abandoned farms, but the business principle was recognized that no one comes to purchase until he knows what there is for sale.*[1]

AFTER watching with growing apprehension the increase in abandonment during the eighties, state officials and public-spirited citizens began to urge the state legislatures to take action.

### Attempts toward Reoccupation

In New Hampshire the Board of Agriculture in 1889 petitioned the Legislature "to enact a law by which the inducements offered by the abandoned, neglected and uncultivated farms can be brought to the attention of the vast number of industrious and thrifty people annually coming to this country to purchase land."[2] Pursuant to this proposal, the Legislature in the same year authorized the Board to develop the agricultural resources of the state through immigration and other means, whereupon that body proceeded to conduct a publicity campaign for the reoccupation of the so-called "abandoned" and "partially abandoned" farms. Though certain groups in New Hampshire were opposed to advertising the abandoned farm abroad, to most such action seemed necessary if proper results were to be obtained. The press of the state coöperated by printing columns on the situation and the op-

[1] Statement of the New Hampshire Commissioner of Agriculture, in New Hampshire *Annual Report* for 1890, II, 471.

[2] Report of the Secretary of the State Board of Agriculture in New Hampshire *Annual Report* for 1889.

portunities offered, while even newspapers having a national circulation devoted space to descriptions of the attractions of the Granite State and the advantages of securing a home within her borders.[3]

The Board also sent out letters of inquiry to the selectmen of each town, asking them for the addresses of the owners of any abandoned farms in their district. Upon receipt of this information, the Board despatched an elaborate questionnaire, asking for the necessary facts with which to make the advantages of the farm known. One hundred and fifty-four towns reported 1,342 abandoned farms with tenantable buildings. From the descriptions received, and from observations made in personal visits, the Board prepared a pamphlet of 103 pages, containing a map of New Hampshire and statements with regard to the financial, educational, and social advantages of the state. It discussed the adaptability of the farms to various branches of agriculture and gave special prominence to their possibilities for summer homes. The first edition of this booklet numbered 8,000 copies and within six months, 6,000 had been sent to Canada, England, and Sweden, as well as to all parts of the United States, in response to which over 2,000 letters of inquiry were received.[4]

Vermont's course of action was very similar to that of New Hampshire. In 1888, a year before New Hampshire acted, the Vermont Legislature appointed a commission "to investigate the agricultural and manufacturing interests of the State and to devise some means of developing the same." The head of the commission was advised to

> take such experimental action as shall seem to him best calculated to bring the agriculture and manufacturing advantages of the State to the knowledge of the people of other states or countries and induce them to purchase, lease, or labor upon unoccupied or abandoned or other farms for the purpose of cultivating such lands or farms.[5]

[3] New Hampshire *Annual Report* for 1890, II, 471.
[4] *Ibid.*, p. 472.
[5] Valentine, *Report of the Commissioner of Agriculture*, p. 2.

As in New Hampshire, the Vermont Commissioner of Agriculture sent out a questionnaire to the "listers,"[6] inquiring about the number of abandoned farms in each town and the price for which they might be bought, with particulars regarding maple-sugar orchards and the number and condition of farm buildings. The Commissioner sought like information about farms which were still occupied but "which can be bought at about the same price as those unoccupied," an expression, as the *Nation* of that day remarked editorially, "very significant as showing that the extent of the agricultural depression is not exhibited by a list of abandoned farms merely."[7]

The answers from the listers, some of whom failed to reply, gave definite details about more than a thousand farms which had been given up for agricultural purposes. One-half of them were said to have buildings in fair condition, and most could be bought at from $3.00 to $5.00 per acre.[8] A map was issued by the Commissioner of Agriculture in 1890, indicating the location of the townships whose listers reported unoccupied farms. Practically all such towns were situated in eastern Vermont, which is rougher in contour than the lands of the Champlain Valley. The earlier-settled portions of Vermont, particularly Windham County in the southeastern corner of the state, contained the largest section of contiguous towns reporting abandoned farms. Especially outstanding also was the range of towns along the backbone of the southern half of the Green Mountains; thus, from the Massachusetts line north, Readsboro, Searsburg, Somerset, Stratton, Winhall, Peru, Mt. Tabor, Mendon, Sherburne, and Chittenden, all of which reported unoccupied places for sale.

This map and a catalogue of farms on the market were sent to all who made inquiries concerning opportunities in Vermont. Two years later the Legislature authorized the Board of Agri-

[6] The Board of Appraisers in each town.
[7] *Nation*, XLIX (1889), 389.
[8] Valentine, *Report of the Commissioner of Agriculture*, p. 7.

culture to compile a complete report regarding abandoned farms, whereupon a booklet, *List of Desirable Vermont Farms, 1893,* was published.[9]

Maine, too, was taking stock in an endeavor to turn the attention of prospective buyers to unoccupied property. After an inquiry in 1890, the state Bureau of Industrial and Labor Statistics listed 3,318 places under the category of farms "formerly occupied but now deserted, and upon which cultivation is now abandoned and the buildings, if any, unoccupied and permitted to fall into decay," and sought potential purchasers for them.[10]

Little hope obtained, however, of persuading farmers or the sons of farmers from other parts of the United States to come into northern New England. Why should they struggle to wrest a livelihood from a farm which the thrifty Yankee had given up as a bad proposition? A few of the more sightly locations could be disposed of as summer homes to the more prosperous city dwellers of southern New England and New York, who were beginning to look farther afield as conditions in the urban areas became more congested,[11] but they were only part-time residents. The immigrant farmer, on the other hand, seemed to offer better possibilities. Public authorities in the hill country had long watched with envious eyes the steady stream of newcomers entering the United States at New York and Boston, and proceeding immediately into the West. If only some of this migration could be diverted into northern New England, new life might be planted upon empty farms. Why, it was asked, should an immigrant family journey West and take up unimproved land, when unoccupied hillside farms could be procured so cheaply in near-by New England? Many people believed that the European peasant family, more modest in their wants than the Yankee household, was the only type which could live on the more remote hill-country places.

[9] Vermont Board of Agriculture, *List of Desirable Vermont Farms, 1893,* p. 5.

[10] Maine Bureau of Industrial and Labor Statistics report for 1890, p. 96.

[11] New Hampshire *Annual Report* for 1903-4, III, xxiii.

"They alone," commented an observer in the nineties, "are willing and able to lead simple farm lives, such as the pioneers of the West or the original New England settlers lived. The native Americans are now too impatient, too extravagant, too proud under the changed conditions to be successful farmers."[12]

The north European, and particularly the Scandinavian, was considered the most desirable element to attract. Even before the desertion of the poorer farms had become so widespread as to alarm northern New England authorities, efforts were made to bring immigrant farmers from these sections into virgin regions of the hill country. Maine had the most to offer in this direction. As early as 1864 the Board of Agriculture in that state recommended that the Legislature adopt "measures for the encouragement of immigration from Europe and especially from its northern portions,"[13] but that body took no definite action until 1870, when it appropriated a small sum of money to employ an agent[14] to go to Sweden for the purpose of inducing immigrants to come to Maine. After considerable effort he succeeded in persuading a small group of Swedish families, numbering 58 men, 20 women, and 36 children, to settle in Aroostook County rather than go into what was then the Northwest. In July, 1871, the colony arrived at Halifax, Nova Scotia, journeyed to St. John, New Brunswick, and was taken up the St. John River on two boats to Tobique Landing, and then by team to Aroostook County, where they settled the township of New Sweden.[15] "They are a very prudent, industrious, trusty and civil people," declared the secretary of the Maine Board of Agriculture in 1871.[16]

Much as their advent was appreciated, however, they never

[12] A. F. Sanborn, "The Future of Rural New England," p. 83.

[13] Maine Board of Agriculture report for 1864, p. 83.

[14] W. W. Thomas, of Portland.

[15] Maine Board of Agriculture report for 1871, pp. 148-49. See also Norberg *et al.*, *The Story of New Sweden*, pp. 5 *et seq.*

[16] Maine Board of Agriculture report for 1871, pp. 148-49.

came in any great numbers. In 1890, there were 1,452 Swedes in Aroostook County, most of them living in the towns near New Sweden, one of which was called Stockholm; but the total in the state, including children born in this country of Swedish parents, was only 2,546.[17] The West had too much to offer newcomers.

In the late eighties and early nineties special efforts were made in Vermont to interest immigrant farmers in the opportunities to be found in her unoccupied farms. Again it was the Swede who was the main object of attack. In 1889, the Commissioner of Agriculture had maps made of the state, with explanatory marginal notes in both Swedish and English, giving information concerning the openings Vermont had to offer the immigrant. A consignment of these was then sent to the American minister to Sweden and Norway,[18] who distributed them to Swedish families considering the possibilities of migrating. This attempt, however, met with pronounced opposition from emissaries of Western transportation companies and other agencies. According to the state Commissioner of Agriculture, false representations were made, and the promoter of a Swedish colony in Vermont was subject to personal attacks in some of the Scandinavian newspapers in writings which could be traced to those desirous of securing immigrants for Western lands or for other sections of the country. The whole campaign netted the Green Mountain State but twenty-seven families.[19]

One type of immigrant which came into northern New England without the aid of any state stimulation was the French Canadian. He came because the high birth rate in the Province of Quebec, coupled with the lack of manufacturing development, had resulted in a surplus population[20] which was

[17] Norberg *et al.*, *The Story of New Sweden*, p. 90.
[18] W. W. Thomas.
[19] Valentine, *Report of the Commissioner of Agriculture*, pp. 15, 25.
[20] J. Russell Smith, *North America*, pp. 61, 97. As late as 1921 the birth rate in French Canada (four-fifths of the population of Quebec in that year

forced to seek a living in other regions. The French Canadians were not received with open arms in the hill country. One observer in the seventies denounced them as shiftless, roving people. They "travel many miles to help Vermont farmers," he admitted, but "the summer over, they return with almost the only money they ever see . . . which is often exhausted before they ever reach home."[21]

The French Canadians were regarded as an undesirable addition to the population of New England, particularly in the rural regions. "All public interests have suffered enormously by the substitution of such people for the thrifty public-spirited farmers who preceded them," lamented one critic. He characterized the newcomers as "easy going . . . people, living in a slipshod way from their labor when things go well, but if sickness comes or crops are short, or the winter long and hard, more or less dependent upon the poor fund," and considered them "the bane of local and even state politics, particularly in New Hampshire, for many of the voters are purchasable at least once at each election and as they hold the balance of power in many small towns, purchasers for both parties are rarely wanting and prices rule high."[22] Moreover, people were afraid that the invasion of the habitant family, which had reduced the demands of life to the barest necessities and did all the farm work without outside help, would lower the standard of living in the hill country, and drive the Yankee farmer out. A French traveler in northern New England in the nineties noted. "On voit des Canadiens français, enfants de familles nombreuses, ayant peu d'emploi dans leur pays natal et se contentant d'un gain moindre que les Yankees, venir

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was French) was as high as it was in the United States in 1830. In 1921, there were 37.1 births per 1,000 inhabitants, and only 17.5 deaths, a net gain of 19.6. The 80,000 French in Quebec in the days of the American Revolution had by the twentieth century increased to 3,000,000, not including the many emigrants.—*Ibid.*, pp. 61, 97.

[21] "On the Boundary Line," p. 337.

[22] Currier, "The Decline of Rural New England," p. 386.

prendre la place de ceux-ci."[23] This situation, contemporaries feared, would mean the passing of the New England farms "into the hands of the foreigner or distinctly peasant element."[24]

Such fears were groundless, however. Most of the French Canadian immigration, attracted by the need for more factory workers, went to the mill towns and cities of southern New Hampshire, southwestern Maine, and southern New England.[25] Comparatively few ever settled in the hill country as farmers, and those who did usually found plenty of good opportunities to purchase occupied farms from Yankees who wished to move away. Scarcely any settled on abandoned farms. In the predominantly rural state of Vermont, for instance, the proportion of foreign-born population increased by 2.7 percent in the last half of the century, rising from 10.4 percent in 1850 to 13.1 percent in 1900. The largest group were those from Canada, the number increasing from 14,470 in 1850 to 25,540 in 1900. Of this latter figure, 14,924 were French Canadian and 10,615 English Canadian. Aside from the native-born Irish, whose numbers declined from 15,377 in 1850 to 7,453 in 1900,[26] the next largest group of aliens in Vermont were English and Welsh, who slowly mounted from 1,603 in 1850 to 3,503 in 1900. The Scandinavians rose from 113 in 1880, the first year they were reported, to 1,200 in 1900, while the Italians, attracted by Vermont's granite, marble, and slate industries rather than by her farming, jumped from 30 to 2,154 in the same period.[27]

[23] Levasseur, *L'Agriculture aux États-Unis*, p. 188.

[24] Benton, "The Decadence of Farming," p. 30.

[25] A French newspaper was established in the textile city of Manchester, N.H., as early as 1869. In 1927, it was claimed that 28 percent of the population of that state was French Canadian or of French Canadian descent, that is, either the father, or mother, or both were of that nationality.—*New Hampshire: Resources, Attractions, and Its People*, IV, 1090.

[26] Rossiter, "Vermont," p. 432. Large groups of Irish were imported into Vermont, 1846-50, to help construct the railroad lines.—*Ibid.*

[27] *Ibid.*, p. 429. The distribution of persons born in specified countries and residing in Vermont for each decade from 1850 to 1900 is given in Appendix 2, Table III.

Notwithstanding the determined efforts to secure new blood for the deserted farms[28] no pronounced movement of reoccupation set in.

> Supposing a new population be brought in by immigration, [inquired the *Nation* in 1889], is it to be expected, whencesoever it may come, that it be shrewder, thriftier, more intelligent, more industrious than the native New England population? . . . How then, can the new people, under the same conditions, succeed when others fail?[29]

The project as a whole, however, had certain beneficial results. A considerable number of the abandoned places were sold to near-by farmers who were glad to enlarge their land holdings at the prevalently low prices, to people who desired summer homes, or, in a very few cases, to discontented farmers from other states and to former "hired men" from the hill country.

After a canvass carried on in April, 1899, the New Hampshire Board of Agriculture made a glowing report of the efficacy of its attempts to check abandonment, claiming that of the 1,342 abandoned farms with tenantable buildings which had been reported to it, more than half were again occupied.[30] Immediately following the turn of the century, the percentage was put at an even higher figure. In 1903, the secretary of the Board asserted that as a result of its endeavors, he was justified in stating that three-fourths of the vacant houses on abandoned farms had become the homes of people during the entire year or during the summer months.[31]

The information gathered by the Board, however, was too incomplete to be of any value in estimating the total amount of unoccupied farms still existing in the state. Since the deserted places enumerated were only those possessing buildings in fairly good condition, a large number were never listed, for few of

[28] New Hampshire alone distributed 30,000 pamphlets of various kinds in the work.—New Hampshire Board of Agriculture report for 1898-99, p. vii.

[29] *Nation*, XLIX (1889), 389.

[30] New Hampshire Board of Agriculture report for 1898-99, p. vii.

[31] New Hampshire *Annual Report* for 1903-4, III, xxiii.

them could be included in this category after more than five years of neglect.[32] Neither did the campaign seriously check current desertion of the poorer farm land. The New Hampshire Commissioner of Agriculture let the wish be father to the thought when he declared in 1899 before the United States Industrial Commission, "There is no abandonment of farms going on now. It has been checked; the tendency is the other way now. People are coming back into the country towns."[33]

While in the majority of localities desertion was heavier during this period than at any other time, the movement continued into the twentieth century, and will go on until most of the poorly situated farms have been given up. Nevertheless, toward the end of the nineties, northern New England authorities lessened their activities for reoccupation, and the wide press publicity about the abandoned farm gradually began to subside. The *Nation* noted in 1899 that the literature of the summer had been noticeably wanting in dissertations on abandoned farms. In New England the question had hardly been raised in the papers, and states which two or three years previously had been issuing descriptive catalogues of deserted farms and endeavoring by systematic advertising to bring tenants again to those once prosperous homes, were no longer continuing their efforts.[34]

While the attempts to rehabilitate the hill country by persuading new people to settle on the abandoned farms were of little avail, two developments whose influence was felt more widely occurred during the last three decades of the century. The further extension of the railroad net between 1870 and 1900 brought many new regions into closer contact with the outside world, and the opportunities offered the hill-country

[32] "Instead of the 887 deserted farms reported by Commissioner Batchelder of New Hampshire in 160 towns," maintained the *Nation* in 1889, "three times that number would probably be a low estimate."—*Nation*, XLIX (1889), 367.

[33] Testimony given before the U. S. Industrial Commission quoted in George F. Wells, "Status of Rural Vermont, 1903," p. 90.

[34] *Nation*, LXIX (1899), 184.

farmer in these years to secure information about more efficient methods of production tended to some extent to help him fortify himself against adverse conditions.

### The Further Extension of the Railroad Net

Since almost all the lines of major importance had been completed by the beginning of this period, most of the construction between 1870 and 1900 was of branch lines which acted as feeders to the main routes, and by the beginning of the century northern New England was fast approaching her maximum railroad development. The map given on page 37, shows the territory in Vermont and New Hampshire opened during these decades.

During the seventies many sections of Vermont which had hitherto depended on stagecoach and wagon for transportation to the nearest village on a railroad were given the passenger train and the freight car. In 1871, a short line was laid in the west central section of the state, leaving the Rutland Railroad at Whiting, passing through Shoreham and over the southern end of Lake Champlain to Ticonderoga, New York,[35] while in the same year a spur was built from Bennington, in southwestern Vermont, eastward up through Woodford into Glastonbury.[36] In 1872 a few towns in the northwestern part of the state were touched by a new road which traveled from St. Albans 29 miles up the Missisquoi valley to Richford, and the following year the east central portion was penetrated by a line 38 miles in length running from Montpelier to Wells River on the Connecticut.[37] Two years later a few miles of

[35] Letter to writer dated Nov. 27, 1932, from the town clerk of Shoreham, Vt. The bridge over the Lake has since been abandoned and the road is used for freight only, running from the Rutland line as far as Larrabee's Point.

[36] Letter to writer dated Nov. 25, 1932, from the city clerk of Bennington, Vt. This branch is no longer in operation.

[37] *The Vermont of Today*, I, 242. "There is but one straight mile of track on this tortuous road," noted an observer. It is in the town of Plainfield.—*Ibid.*

road were constructed from White River Junction west along the Ottauquechee valley to Woodstock, but the plan to push this over the Green Mountain range to Rutland never materialized, and the line has since ceased operation.[38] The year 1877 marked the completion of the most important road built in Vermont during this period, a link in the route from Portland, Maine, to Ogdensburg, New York. This extended from St. Johnsbury, near the Connecticut, 125 miles across northern Vermont, to Swanton on Lake Champlain. In the same year, a branch was laid from Burlington northwest to Cambridge Junction, where it joined the St. Johnsbury-Swanton line.[39]

In the eighties another group of railroad companies was organized and more short roads built, the most noteworthy of which was the one, constructed between April and November, 1880, running from Brattleboro in the southeastern corner of the state, 36 miles northwest, up the West River to South Londonderry. The original plan was to carry this line, called the Brattleboro and Whitehall, across the Green Mountain barrier to Whitehall, New York, but this fell through.[40] In 1882 a spur was built from New Haven Junction on the Rutland Railroad a few miles up through the hills to Bristol village,[41] and in the following year another was laid from Concord in northeastern Vermont, northward up through Victory into East Haven.[42] In 1886 a company was formed to push a line from

[38] On Dec. 26, 1932, the Vermont Public Service Commission granted the Woodstock Railroad Company's petition to cease operation on April 1, 1933, after it had lost money for five years. The Company was able to sell part of its roadbed to be used as a portion of the new state highway route between Woodstock and White River Junction.—*Burlington Free Press,* Dec. 27, 1932, p. 2.

[39] The road from Portland to Ogdensburg, N.Y., was Portland's attempt to wrest from Boston some of the traffic from the West. Ground was broken for this particular road at St. Johnsbury, Vt., in 1869.—Crockett, *History of Vermont*, IV, 70, 90.

[40] *Ibid.*, p. 90. This line is no longer in operation.

[41] *The Vermont of Today,* I, 242 *et seq.* This line is no longer in operation.

[42] Letter to writer, dated Nov. 30, 1932, from the town clerk of Concord, Vt. (F. A. Brewer). This branch has since been given up.

Hoosac Tunnel in Massachusetts a few miles north up to Wilmington, in Windham County, Vermont,[43] while in 1888 two towns, Guildhall and Maidstone, in the northeastern corner of the state, were given railroad communication when a road built north from Lancaster, New Hampshire, passed through them.[44] In the same year, another company was organized to construct a line from Montpelier to Barre, and in 1892 this was extended a short distance further, up to Williamstown. In 1895 another was incorporated to build a railroad in the north central part of the state to haul granite from Woodbury down to Hardwick, and in 1900 a line of considerable importance, an extension of the Rutland Railroad, was completed, going from Burlington northward by a causeway over a part of Lake Champlain through Grand Isle County to the Province of Quebec. Within two years the last bit of railroad construction in Vermont, a branch line from Bethel on the Central Vermont 18 miles westward up the winding White River valley to Rochester was begun.[45]

A considerable amount of territory in New Hampshire was opened to rail transportation during the last three decades of the century. The mileage in the state increased by about one-third, rising from approximately 900 miles in 1870[46] to 1,239 in 1900, within seventeen miles of the maximum.[47]

Most of the building in this period was done in the southern part of the state, as the map indicates. In 1871 the Monadnock Railroad was constructed from Winchendon, Massachu-

[43] *The Vermont of Today*, I, 242 *et seq.*

[44] Letter to writer, dated Nov. 29, 1932, from the town clerk of Guildhall, Vt.

[45] *The Vermont of Today*, I, 242 *et seq.* This last road, so twisting that it was known locally as "The Peavine," suspended operations on May 1, 1933.

[46] *The Statistics and Gazetteer of New Hampshire*, p. 408.

[47] *New Hampshire: Resources, Attractions, and Its People*, II, 454. The New Hampshire railroads reached their height in 1915, when there were 1,256 miles of road in operation. Under increasing competition from motor vehicles, the figure declined to 1,232 miles by 1926 and has dropped more since then.—*Ibid.*

setts, 15 miles north to Peterborough, New Hampshire, and in 1878 it was extended north through Hancock and Bennington to Hillsborough, where it met the road which had been laid to that place from Concord in the preceding period. In 1873 two short lines were completed in this portion of the state, one joining Nashua to Acton, Massachusetts, 5 miles of which were in New Hampshire, and the other linking Newton to Amesbury, Massachusetts, only 2.3 miles of which were in the former state. In 1874, Portsmouth and Dover, 10 miles apart, were connected, and in the same year the road which had been built earlier from Nashua to Wilton[48] was pushed west to Keene. In 1874, also, the most important piece of railroad constructed in this section of the state during these decades was opened. Running from Worcester, Massachusetts, to Portland, Maine, this line furnished outlets for nine towns in southeastern New Hampshire between Nashua and Rochester.[49] No further construction was undertaken in this area until 1892, when a short branch was laid from Ayer, Massachusetts, up to Brookline, New Hampshire, and two years later pushed on to Milford,[50] while in 1893 a five-mile spur was completed from Goffstown up to New Boston.[51] The last bit of building done in this region at this time was undertaken between 1899 and 1901 when a cross road 18.5 miles long was laid from Man-

[48] See above, p. 39.

[49] *New Hampshire: Resources, Attractions, and Its People,* II, 454. These towns were Hudson, Windham, Derry, Hampstead, Sandown, Fremont, Epping, Lee, and Barrington.

[50] Letter to writer, dated Nov. 29, 1932, from the town clerk of Brookline, N.H. (F. R. Hall). This road by 1932 was used for freight only.

[51] In 1925 the Boston and Maine Railroad company, which by 1900 had gained a monopoly of the New Hampshire lines, petitioned the Interstate Commerce Commission to abandon this branch, claiming that it was losing $17,000 annually in its operation. This request was opposed by the town of New Boston, by the Merrimack County Farmers' Exchange, and by a lumber concern, the Langdell Lumber Company, which claimed that it had 3,000,000 feet of lumber waiting shipment from the New Boston station. The petition was denied.—*New Hampshire: Resources, Attractions, and Its People,* II, 454.

chester southwest to Milford by way of Bedford and Amherst.[52]

Five short branches were constructed in central New Hampshire in the first twenty years of this period. The first, opened in 1872, extended from Wolfeboro, on Lake Winnepesaukee, 12 miles east to Sanbornville on the main line between Rochester and Conway. Nothing further was attempted until 1888, when a spur 4 miles in length was built to connect the village of Belmont with Belmont Junction. Two years later, Tilton, just west of Belmont, was joined by a five-mile line with Franklin Junction, situated on the road between Concord and White River Junction, Vermont. In 1889 the branch which had penetrated the Suncook valley from Manchester north to Pittsfield in the previous period,[53] was extended 5 miles north to Center Barnstead, and in 1890 the railroad map of central New Hampshire was completed by the construction of a line from Lakeport 17 miles along the shore of Lake Winnepesaukee to Alton Bay, where it met the road which joined Alton Bay to Rochester.[54]

While many of the branch lines opened in northern New Hampshire during these decades were constructed for the purpose of making the magnificent scenery of the White Mountains more accessible, one through road of considerable importance, part of the line planned to connect Portland, Maine, with the Great Lakes at Ogdensburg, New York, was laid. In 1875 this was pushed from Portland 91 miles northwest to Fabyans and from there was soon extended to Lunenburg and St. Johnsbury, Vermont. Sixty-three miles of this were in New Hampshire, passing through the southerly part of

[52] In 1924 the Boston and Maine asked to be allowed to abandon this line on the ground that it was losing $40,000 a year on it. Although the towns of Amherst and Bedford opposed the petition, it was allowed in the following year.—*Ibid.*

[53] See above, p. 40.

[54] Stackpole, *History of New Hampshire*, I, 165 *et seq; New Hampshire: Resources, Attractions, and Its People*, II, 454 *et seq.*

the White Mountain district and giving transportation facilities to the towns of Conway, Bartlett, Carroll, Whitefield, and Dalton.[55] Three years previously, in 1872, a branch had been built easterly from Littleton up the Ammonoosuc valley through Bethlehem and Carroll to the base of Mount Washington. In 1879 a spur as laid from Bethlehem Junction 10 miles up to the Profile House, and three years later a three-mile line joined Bethlehem to Bethlehem Junction.[56] In 1883 a road was opened from Plymouth 20 miles straight north to North Woodstock, travelling up the Pemigewasset River valley, and in 1895 it was pushed a few miles further to Lincoln.[57] In 1887 the Upper Coos Railroad started to lay track north from Coos Junction up the Connecticut valley; the section from Stratford to Stewartstown was built in 1888, while in the following year the line was extended to the Canadian boundary.[58] In 1892 a spur 3 miles in length was run from Jefferson Meadows northward to the Waumbek House. The last bit of building of any consequence in this section of New Hampshire was the extension, in 1893, of a line which had been constructed in 1879 from Whitefield, 10 miles east to Jefferson, on through the townships of Randolph and Gorham to the growing pulp town of Berlin on the Androscoggin River, whose only rail connection up to then was by the Portland-Montreal route.[59]

Maine, too, was expanding her railroad net during these thirty years. By the end of the period the southern part of the state was well served by facilities for transportation, and the northeastern quarter, particularly the rich and level lands in Aroostook County, had been opened up, but the northwestern portion, which was sparsely populated and, in many sec-

[55] Stackpole, *History of New Hampshire*, III, 171.

[56] Both of these were abandoned in the next period under competition of motor traffic.

[57] *New Hampshire: Resources, Attractions, and Its People*, II, 454 *et seq.*

[58] McClintock, *History of New Hampshire*, p. 574; letter to writer, dated Nov. 23, 1932, from the town clerk of Stewartstown, N.H.

[59] *New Hampshire: Resources, Attractions, and Its People*, II, 454 *et seq.*

tions, uninhabited, was not penetrated.[60] Many short lines were built, for the most part in the southern half of the state. Among these were the Bangor and Piscataquis, which was laid from Bangor to Dover in 1869, and extended to Guilford in 1871. In 1875 it was pushed on to Abbott, in 1877 to Blanchard, and in 1884 to Greenville. In 1871, also, Portland was joined to Rochester, New Hampshire, and later in the century, as we have noted in our discussion of the latter state, this road was extended to Nashua and to Worcester, Massachusetts, providing Portland with a route which carried large amounts of freight from New York and the West. In 1884 the popularity of Bar Harbor and Mt. Desert Island as a summer resort warranted the construction of a road from Bangor down to Mt. Desert Ferry, and in 1898-99 the southeastern section of Maine was further served by the completion of the Washington County Railroad.

Two lines of first importance were built during this period. The first, already mentioned in connection with both Vermont and New Hampshire, was the road running from Portland northwestward to Fabyans, New Hampshire, and then on to Ogdensburg, New York, and the second, completed in 1894-95, was the Bangor and Aroostook. This line had been opened from Bangor to Katahdin Iron Works in 1883, but it was not until 1894 that the extension from Brownville, just south of Katahdin, up to Houlton in Aroostook County, was ready for use. In the following year it was continued north, opening the rich potato country to the United States markets.[61]

The railroads constructed during this period brought a considerable number of hitherto isolated hill towns into touch with southern New England, and provided a decided impetus to the

[60] No railroad has ever penetrated this territory.

[61] *Maine: A History*, III, 707-11. This Aroostook region had been connected with Canada since 1870, when the New Brunswick Railroad penetrated Maine as far as Houlton. In 1875 it was constructed northward to Ft. Fairfield, in 1876 to Caribou, and in 1882 to Presque Isle. Later it became a part of the Canadian Pacific.—*Ibid.*

growing dairy industry. Butter and cheese, the chief dairy products of the hill country in these years, were now exported more conveniently and more regularly from a large area of newly opened territory, while some creameries producing these commodities depended upon the new branches to collect their raw materials.[62] By the end of the century fresh milk and cream were being shipped daily to Boston and other cities in Massachusetts from many sections of New Hampshire.

Although the augmented transportation advantages offered a renewed hold on life to many portions of northern New England, the dwellers on the outlying farms in remote hill districts not reached by the railroad were little affected by the new facilities. The improved roads, trucks, and the cheap automobile which finally put these isolated localities into closer communication with the outside world were products of the next period. The development of better methods of farming affected a wider number of people than the further extension of the railroad net.

### Efforts to Improve Farming

A number of critics maintained that the failure of many a New England farmer to make a good living was due as much to his own incapacity as to the extravagance of his imitations of city life on the one hand or the impositions of his economic masters on the other. To one observer, such incapacity was in large measure the result of unintelligence and plain shiftlessness. He felt that if the average husbandman worked with the same alertness as the average business man, he would do as well as the latter.[63] Instead of studying markets systematically,

[62] For example, the St. Albans Creamery, at St. Albans, Vt., was supplied with cream from sixty separating plants located along the lines of railroads centering at that place.—Vermont Board of Agriculture report for 1894, p. 275.

[63] An amusing illustration of this point is given in the comment of a "native" to an author who had hired his team in the nineties (W. H. Bishop, "Hunting an Abandoned Farm in Upper New England," p. 41):

"'There's some folks that make farming pay,' said my driver, pointing with his whip to a place we passed.

"'How?' I demanded, thinking to hear some new plan.

the farmer guessed at what products would be in demand. Because peas had brought a good price the previous season, he planted ten times as many the next, forgetting that everybody else had planted peas with the same idea in mind.[64]

Although it was not until the next century that any permanent and widespread agencies for teaching the farmer better methods of agriculture were established in the hill country, a good beginning in this direction was made before 1900. Most of this was accomplished under state and Federal auspices after 1870, but for a considerable period before that, unsponsored by any official bodies, occasional opportunities were offered the more progressive husbandmen to keep abreast of the times.

A wave of spontaneous enthusiasm in the fifties resulted in the formation in many sections of northern New England of county agricultural societies, the prime purpose of which was to hold an annual exhibit,[65] and during this decade and the next the influence of the old-fashioned country fair was at its height.[66] To these exhibitions proud farmers brought their finest livestock and their best produce to receive premiums and praise, while the womenfolk vied in needlework and the results of their baking and cooking. The farmers who won blue ribbons at the fairs were regarded with a respect which everyone coveted, and by thus kindling interest for quality in production, the rewards indirectly aided the hill-country husbandman in becoming more proficient in his work. All the countryside came to the fair, and every inducement was made for everyone to participate as well as to attend. The *New England Cultivator* for August, 1852, contained a notice of the annual exhibition of an agri-

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"'They work,' he replied."

For further material on the subject of work, see the Vermont Department of Agriculture report for 1924-26, p. 6; U. S. Commission on Country Life, *Report*, p. 19.

[64] A. F. Sanborn, "The Future of Rural New England," p. 80.

[65] *Vermont Historical Gazetteer*, I, 119, 252, 511; II, 101; III, 46.

[66] *The Food Supply of New England*, p. 113.

cultural society at Rutland, Vermont,[67] on the first three days in September, with the added good news that

> Arrangements have been made with all the railroads of the State, and with the Saratoga and Washington, the Troy and Boston and Ogdensburgh, and the Champlain Steamboat Company, by which passengers will be carried to and from the Exhibition at one-half the usual price—and animals and articles free at the risk of the owners.[68]

Of great importance, too, were the local agricultural exhibitions held by the farmers of a single town or district, which maintained their popularity through the seventies and into the eighties.[69] Although lacking many features of the larger county fairs, they often exerted as much influence in promoting interest in agriculture as the former gatherings, for at the local shows the husbandman viewed what his neighbors were producing, and the sight of what his fellow-townsmen had been able to do spurred the less progressive farmer on,[70] while the displays of beautiful needlework and choice cookery in the Town Hall stimulated the spirit of emulation among the women of the town.[71]

Much valuable information was disseminated during these years by the various agricultural periodicals. The *New England Farmer,* a monthly journal first published in 1822, was, according to a local Vermont historian, for many years "the oracle of the most progressive."[72] A number of husbandmen in New Hampshire subscribed to the *Cheshire Farmer,* which

[67] The forerunner of the present-day Rutland Fair, one of the largest in the state.

[68] *Illustrated New England Cultivator,* I (August, 1852), 250.

[69] Lyford, *History of the Town of Canterbury,* I, 295.

[70] An observer in 1820 remarked of these fairs, "They rouse the attention of farmers; they collect and diffuse information and they excite the emulation that animates the whole agricultural industry. . . . If a farmer finds that an acquaintance . . . can raise 60 bushels where he only got 10, he resolves at least that he will have 20."—Tudor, *Letters on the Eastern States,* p. 203.

[71] Lyford, *History of the Town of Canterbury,* I, 295.

[72] F. P. Wells, *History of Barnet, Vermont,* p. 244.

started in 1838 at Keene,[73] but the *Farmers' Monthly Visitor*, which began in 1839 and was published at Concord, had a wider circulation and a longer life than the former paper. A periodical of much influence in Maine was the *Maine Farmer*, a weekly which first appeared in Winthrop in 1833. In the fifties, the *Illustrated New England Cultivator*, founded in 1852, was subscribed to by a small number of hill-country families, while in the seventies the short-lived *Vermont Agriculturist*, a monthly founded in 1877, was of some significance in the Green Mountain State. In the latter decades a considerable number in northern New England took the *American Agriculturist*, a paper which was known particularly for the excellence of its illustrations and its special department for young people.[74] The influence of the farm journals widened steadily in these years, and the Secretary of the Maine Board of Agriculture declared in 1872 that the agricultural papers, which had a circulation of 26,500 weekly in that state, were carrying an invaluable store of information into the farm homes.[75]

Largely as a result of suggestions made by these periodicals, local agricultural clubs were established in many hill towns during the mid-century decades. These societies, generally known merely as "Farmers' Clubs," met in informal neighborhood gatherings. Among the achievements of certain groups was the establishment of small libraries containing works upon various branches of farming, reference books, travel books, and biography.[76] These associations helped to fill a real need wherever they were organized.

Up to the last four decades of the century, practically no efforts were made by either the state or Federal government to improve farming through education. A state board of agricul-

[73] The subheading of this journal read "A Monthly Paper Devoted Exclusively to the Improvement of Agriculture in New England."

[74] F. P. Wells, *History of Barnet, Vermont*, p. 244.

[75] Maine Board of Agriculture report for 1872, pp. 400 *et seq.*

[76] F. P. Wells, *History of Barnet, Vermont*, p. 244.

ture was created by the legislature of Maine in 1855,[77] but it was not until the seventies that public opinion in the other two northern New England states was aroused to the need for this step. In 1870 New Hampshire organized an official board, consisting of one member from each county, which was empowered to solicit returns and reports from the different agricultural societies, to hold meetings in the various counties, to collect and distribute grains and other seeds,[78] and to "investigate such subjects in relation to improvements in agriculture as they shall think proper."[79] The Legislature instructed the group to have samples of commercial fertilizer sold in the state analyzed from time to time[80] and ordered it to make a full annual report to the governor. These reports were to be printed and distributed by the state like other public documents.[81] The members were to receive no compensation for their services, but were to be reimbursed for whatever expenditure they might incur in state work.[82] A similar body was created in Vermont in 1871, and directed by the Legislature to act "for the improvement of the general interests of husbandry and the promotion of agricultural education throughout the State."[83]

One of the chief functions of these boards was the publication, either annually or biennially, of the report described above, containing articles replete with advice and information for the farmer. Moreover, they established closer contact with the husbandmen by sponsoring neighborhood gatherings in the various localities of the state at different times through the year. Dur-

[77] *The Food Supply of New England*, p. 119.

[78] Waite, *History of the Town of Claremont*, p. 166.

[79] Legislature's instructions to the Board, quoted in Metcalf, *New Hampshire Agriculture*, p. 19.

[80] *Ibid.*

[81] Waite, *History of the Town of Claremont*, p. 166.

[82] Metcalf, *New Hampshire Agriculture*, p. 19.

[83] Section 245 of the Laws of Vermont, quoted in Vermont Board of Agriculture report for 1900, p. 14. The southern New England states formed state boards of agriculture as follows: Massachusetts, 1852; Connecticut, 1866; and Rhode Island, 1802.—*The Food Supply of New England*, p. 110.

ing the seventies, the state boards of agriculture in each of the northern New England states conducted such a meeting annually in every county.[84] At a typical assemblage, held under the auspices of the New Hampshire board at Concord on August 23, 1871, members of that body presented short papers on timely topics, such as, for example, "Sheep and Sheep Breeding."[85]

In the eighties and nineties these local gatherings blossomed into a series of meetings known as "Farmers' Institutes," with an afternoon, an evening, and often a morning session. Indeed, in localities where the interest warranted their extension, the Institutes lasted two and even three days. All three states participated in this movement, the New Hampshire board carrying on as many as thirty in 1881.[86] At a typical one held at Saco, York County, Maine, on January 26 of the same year, the subject scheduled for the forenoon talks and discussion was "Feeding Cows for Milk," for the afternoon session, "Profits of Selling Milk and Butter Making," and for the evening meeting, at which the attendance was especially large, "Neglected Trifles."[87]

The choice of topics noted above indicates Maine's growing interest in the dairy industry. Vermont and New Hampshire were also becoming increasingly concerned with this matter, and by the nineties the boards in all three states were making special efforts to promote dairying. At an Institute conducted at Unity, New Hampshire, on October 29, 1895, and attended by over two hundred people, the entire forenoon was devoted to dairy subjects, such as the testing of milk for butter fat and the eradication of bovine tuberculosis, while the afternoon was spent on the question of road improvement, a matter of vital

[84] Vermont Board of Agriculture report for 1883-84, p. 3.

[85] New Hampshire Board of Agriculture report for 1871, p. 7. This paper was given by Dr. Mason of Moultonborough, N.H.

[86] New Hampshire Board of Agriculture report for 1881, p. 290.

[87] Maine Board of Agriculture report for 1881, p. 69.

importance to the farmer who carried his milk and cream at frequent intervals to the new butter and cheese factory. The evening session was given to the history of agriculture in New Hampshire.[88]

These meetings performed good services in stimulating the listless and inspiring the active husbandman. Furthermore, they brought new ideas into the community, and made possible a forum for the interchange of opinion and experience. But their work was at best fragmentary and itinerant,[89] and when the resident County, Club, and Home Demonstration Agents arrived in the second decade of the next century, no more "Institutes" were held.

The Federal government also took part in the attempt to educate the farmer, confining its efforts during this period to subsidizing agricultural colleges and experiment stations. As early as 1853, the *New England Farmer* regarded the lack of facilities for giving the farm youth any scientific preparation for his work as deplorable.

> It would seem [the editor declared], that we considered agricultural skill as an instinct of our nature . . . and that like the birds of the air which a thousand years ago built their nests as skillfully as now, we had by nature implanted in us as much of a sort of gift of cultivating the earth as would ever be of any advantage to us.[90]

In the following years agitation for the establishment of institutions to give such training grew steadily stronger.[91] In answer to this demand, and as the result of the untiring endeavors of Senator Justin L. Morrill of Vermont, Congress in 1862 passed

[88] *New Hampshire Agriculturist,* I (December, 1895), 141. For another program (Institute held in Coos County in 1887), see New Hampshire Board of Agriculture report for 1888, pp. 21 *et seq.*

[89] *The Food Supply of New England,* p. 116.

[90] H. E. French, associate editor, in the *New England Farmer,* VI (March, 1853), 107.

[91] T. D. Hoskins, "Why Does Education Draw Young Men from the Farm?" p. 496; Mrs. J. M. Wright, "On Keeping Our Boys at Home," p. 107; Folsom, "The Rural School Problem," p. 198.

the Morrill Act, which provided that the Federal government should grant a portion of its public lands for the establishment of agricultural colleges in every state. The older states, in which there were no such areas, were given Western land in proportion to the number of representatives and senators each had in the national legislature. In 1890 and in 1907, Congress enacted further bills granting substantial annual subsidies to colleges maintained in accordance with this act.[92] In 1865 Vermont founded her agricultural college in Burlington, as a division of the University of Vermont; in the same year, Maine placed hers at Orono. In the following year, New Hampshire organized hers at Hanover, as a unit of Dartmouth; but in 1893 she set up an independent college at Durham.[93] If the young man of the hill country had the desire and the funds, he could now secure a thorough grounding in the art of husbandry.

In 1889 the national government took another step to help the farmer to learn better methods of carrying on his work by passing the Hatch Act, which granted $15,000 annually to each state and territory for the maintenance of an experiment station for agricultural research to be run in connection with the agricultural college.[94] Within a few years, every New England state had established its station,[95] and in 1906 Congress doubled the amount of money given for this work, while the states ap-

[92] MacGarr, *The Rural Community*, p. 176. In 1862, also, Congress created a Department of Agriculture as a subdivision of the Department of the Interior. On Feb. 9, 1889, President Cleveland signed an act raising the department to the first rank in the executive civil service and giving its administrative officer a seat in the Cabinet.—*Ibid.* The appropriation for the maintenance of the department its first year was $20,000; in 1900, it was $3,000,000.—J. H. Brigham, "Agricultural Progress during the Last Three Decades," p. 39.

[93] *The Food Supply of New England*, pp. 97 *et seq.* Massachusetts established her College of Agriculture in 1867, Connecticut in 1881, and Rhode Island in 1888.—*Ibid.*

[94] J. H. Brigham, "Agricultural Progress during the Last Three Decades," p. 39.

[95] MacGarr, *The Rural Community*, pp. 177-80; *The Food Supply of New England*, p. 98.

propriated additional funds to supplement the Federal.[96] The results of the studies made by these bureaus were published by the government and distributed free. In the last few years of the nineteenth century, and increasingly during the first three decades of the twentieth, the stations tended to concentrate their efforts on products particularly adaptable to the state in which they were situated. Maine, for instance, emphasized her potato, dairy, and orchard lines, and Vermont her dairy, maple, and forestry.[97]

One further agency in helping the farmer become more proficient was the Grange. This society, officially known as the Patrons of Husbandry, and founded at Washington, D.C., in 1866, came to the hill country in the seventies, the first Grange in Vermont being started by the farmers of St. Johnsbury in 1871,[98] and the first in New Hampshire at Exeter in 1873. The number of Granges and the total membership increased rapidly thereafter.[99] In its earlier days, this organization considered that its most important work was in the economic field, the chief function being coöperative buying,[100] but the difficulties ex-

[96] MacGarr, *The Rural Community*, pp. 177-80.

[97] Hills, "The Agricultural Extension Service of the State University," p. 93. Connecticut's station specialized in tobacco growing, poultry raising and dairying.

[98] F. P. Wells, *History of Barnet, Vermont*, p. 244.

[99] New Hampshire, for instance, had in 1890 a membership of 8,900 (Metcalf, "The New Hampshire State Grange," pp. 522-25), which by 1897 had increased to 20,000. In 1897 there were 262 Granges, 228 of which were active and held meetings regularly.—Metcalf, *New Hampshire Agriculture*, p. 29.

[100] William H. Stinson, Master of the New Hampshire State Grange, in an address in 1885, quoted in E. W. Webster, *History of Coöperation in New England*, p. 34.

In 1873, a Business Committee of the local grange in St. Johnsbury, Vt., bought two carloads of Western corn which was sold to patrons for $.92 a bushel at a time when the price in that town was $1.05. Other projects of coöperative purchasing were undertaken under the auspices of the State Grange. The local organizations appointed business agents who forwarded combined orders to the State Business Agent. The State Grange issued elaborate price lists, and flour, grass seed, salt, cloth, boots, farm and household implements were bought in large quantities.—Horton, *History of the Grange in Vermont*, p. 19.

perienced gradually led to the practical abandonment of this policy.[101] By the latter years of the century and increasingly in the next period, the Grange laid less emphasis upon its economic undertakings, giving more attention to educational and social activities. The meetings provided one of the most important social outlets for the farm family before the day of the radio, the ubiquitous movie, and the cheap automobile. At them, the instruction of the farmer was stressed. On every program, the "lecturer" had his place, and readings, recitations, addresses and debates were frequent features. The society also played a worthwhile rôle in imparting information outside of the regular meetings. Local Granges often organized trips to places of interest, where their members inspected new developments or viewed exhibits.

To farm intelligently, the husbandman requires a working knowledge of a wide field of scientific principles. He needs to understand the elements of plant physiology, including nutrition, growth, limiting factors and adjustments, soil physics, and soil chemistry; he must know something about dairy chemistry and bacteriology, animal husbandry, and forestry; he should be able to combat plant diseases and insect pests.[102] With ever widening streams of information pouring from farm journals, Farmers' Institutes, experiment stations, and Grange meetings, and with opportunity offered the younger men to secure a more formal agricultural education in college, the hill country had taken great strides in making this material available. The campaign to improve the cultivation of the farms which were still

[101] Coöperative buying involved problems which its advocates did not foresee. Private merchants often lowered prices and froze out the new competition, after which they increased their charges. The farmers seldom had sufficient public spirit to buy from the local Grange if better bargains were available elsewhere. The frequency with which members cancelled their orders after the goods had been procured caused further troubles, for such goods invariably had to be sold at a loss. Finally, bad management often ate up what profits there might have been.—Horton, *History of the Grange in Vermont*, pp. 19 *et seq.*

[102] *The Food Supply of New England*, pp. 141-42.

occupied had been much more successful than that to check the abandonment of the poorer places. Nevertheless, there were many thousands of farmers who were scarcely touched by these new forces, and deficiency in the knowledge of better agricultural methods continued to be a serious factor in the hill country's difficulties.

In Chapter V we discussed the widespread curtailment in the production of staple crops under the fire of Western competition. Another very important change in production to meet new conditions was the transference of the reliance upon sheep raising as a chief source of income to the slowly developing dairy industry. An investigation of this transition will show how extensive it was.

# IX

## THE RISE OF THE DAIRY INDUSTRY

*The subject of dairying is beginning to awaken an interest in our state. . . . We must seek other sources of income. . . . We have stocked our pastures with sheep . . . , but our wool lies unsold in our attics.*[1]

ALTHOUGH by the beginning of this period the number of farmers in northern New England who were depending upon the sheep industry for their major source of income had greatly decreased, the production of wool still occupied an important share of the husbandman's attention, particularly in Vermont, central and northern New Hampshire, and central Maine. In the 1871 report of the New Hampshire Board of Agriculture, for instance, Franklin, in the central part of the state, and Lebanon and Piermont, in the northwestern section, gave wool growing as the most important means of livelihood.[2] Moreover, some hill-country men continued to make considerable profits from Merino breeding, especially in Vermont and western New Hampshire. In 1871 the Board of Agriculture in the latter state advised its farmers to go into sheep breeding, for "with proper care and perseverance, it . . . brings its returns often and, when successful, bountifully,"[3] while toward the end of the decade it made note of the demands upon the best flocks of New Hampshire from outside to improve strains or to start new flocks. "Within the last five months," the 1878 report stated, "nearly 400 sheep have been sold from Lebanon and

[1] New Hampshire Board of Agriculture report for 1871, p. 281.

[2] *Ibid.*, pp. 54, 65, 77.

[3] *Ibid.*, p. 185. In its 1873 report (p. 378), it declared, "First-class, well-bred sheep have never failed to pay, even during these years of low prices."

adjoining towns and taken to Maine and more are still wanted."[4]

The business was most extensive in Vermont, where large numbers of Merinos were still being exported, particularly from Addison County in the west central part of the state. This region made special shipments to the Territory of Washington in 1874, and to Texas, Maine, and elsewhere in 1876. In 1877 Middlebury, the shire town, sent out 29 carloads of pure breeds, and two years later 41 carloads of rams were shipped to the Southwest. From 1877 to 1881, 6,777 pure-bred Merinos went out from this one railroad station in large groups, and during these years the demand kept in excess of the production.[5]

### The Trend from Sheep to Cows

Although the breeding of fine sheep yielded good returns to the small number of progressive farmers who specialized in it, most of the hill-country husbandmen continued to reduce their flocks, and many sold them all. The number of sheep in Vermont declined from approximately 580,000 in 1870 to 440,000 in 1880, while the wool production fell from 3,100,000 pounds to 2,550,000, in spite of the fact that the average weight of wool sheared per head rose from 5.8 pounds to 6.1. In New Hampshire the sheep decreased from 249,000 to 212,000, and wool production from 1,130,000 pounds to 1,060,000, although the

[4] J. A. Miller of Lebanon on "Fine-Wooled Sheep," quoted in New Hampshire Board of Agriculture report for 1878, p. 451.

[5] *Special Report on the History and Present Condition of the Sheep Industry of the United States*, p. 321. These sheep were exclusive of a large number shipped in small lots by express. Of the 6,777 Merinos,

2,284 were shipped to Ohio
1,728 were shipped to Texas
1,230 were shipped to Michigan
668 were shipped to Kansas
303 were shipped to Pennsylvania
268 were shipped to Missouri
106 were shipped to Maine
134 were shipped to Colorado
56 were shipped to Illinois

weight of wool per head went from 4.54 pounds up to 5.00. In Maine, however, where the inhabitants of the more recently settled portions in the central and northern sections of the state were adding to their flocks, the number of sheep mounted from 435,000 to 566,000 during the same decade, and wool production from 1,800,000 pounds to 2,800,000. Part of the growth in wool production can be attributed to the increase in the weight of wool per head from 4.00 pounds to 4.90.[6]

The eighties brought a sharp decline in Merino breeding, although there was a short-lived revival in the latter years of the decade when a large number of pure-bred rams were exported from Vermont to Australia,[7] the Argentine, and South Africa. The most important factor in the decreased demand was the pronounced shift to a mutton type of sheep. As early as the middle seventies the New Hampshire Board of Agriculture observed, "Whatever breed we adopt, we can only hope for profit in a mutton breed."[8] The low price of wool in the middle eighties hastened the transition to mutton rams in the

[6] *Ibid.*, p. 329. The exact figures for wool production are:

| | Maine | New Hampshire | Vermont |
|---|---|---|---|
| 1870 | 1,774,168 | 1,129,422 | 3,102,137 |
| 1880 | 2,776,407 | 1,060,584 | 2,551,113 |

For the exact figures pertaining to the number of sheep, see below, notes 98, 99, and 100. Salmon gives the improvement of percentage of wool to live weight for Vermont sheep as follows: 1812, 6; 1844, 15; 1865, 21; 1892, 36.—*Ibid.*, pp. 307-8.

In the earlier decades of the sheep industry, the number of fibers to the square inch of surface on Vermont Merinos was between 40,000 and 48,000. In 1890, an investigator found 222,300 to the square inch, with the bearing surface greatly increased on the limbs and head, and by the growth of wrinkles.—Clark, "The State of Vermont," p. 703. For a conception of what is meant by "wrinkles," see the reproduction of the lithograph of "Bismarck," p. 90.

[7] It was found that these rams when crossed with Australian ewes, gave increase in the weight and density of the fleece.—*Special Report on the History and Present Condition of the Sheep Industry of the United States*, p. 312.

[8] New Hampshire Board of Agriculture report for 1874, p. 189. "Grow sheep which will produce mutton as well as wool," advised the same Board in the middle eighties.—New Hampshire Board of Agriculture report for 1883, p. 318.

range country of the West, and with this came the evolution of the Delaine and other Merino strains carrying a good grade of wool on a fair mutton carcass.[9] When Western sheepmen introduced this new blood in their breeding of stock, and the flockmasters of the Antipodes abandoned the Vermont for other Merino types, the market for the hill-country sheep breeders practically disappeared.[10]

The shift from wool-bearing to mutton sheep in New England is shown very clearly in a comparison of the statistics for 1840 and 1890. In 1840 over 70 percent of the nearly 4,000,000 sheep in the region were either Spanish or Saxony Merinos and their grades, and about 29 percent were of the unimproved native stock, while the English mutton breeds consituted less than one percent. In 1890, 26 percent were Merinos and their grades, and only 12 percent unimproved, the English breeds making up the remaining 62 percent.[11] It was estimated in the latter year that of the 192,824 sheep in New Hampshire, 20 percent were the common or native type and crosses on them, 20 percent were Merinos of various grades, and 60 percent of English blood, with this type increasing rapidly at the expense of the others. In Maine the Merinos were being supplanted by Oxforddowns, Hampshiredowns, and Southdowns, weighing 225 pounds, and Cotswolds running up to 244. By 1890, 50 percent of the sheep in that state were of English strains.[12]

The infiltration of the mutton stock into Vermont was a slower process. The tradition of breeding wool-bearing sheep was so firmly entrenched in the minds of her farmers that they saw no reason for changing to meet the demands of a new mar-

[9] The Delaines were a product of eastern Ohio, western Pennsylvania, and northern West Virginia during the seventies and thereafter.—Connor, "A Brief History of the Sheep Industry," p. 149.

[10] *Ibid.*, pp. 149, 163.

[11] *Special Report on the History and Present Condition of the Sheep Industry of the United States*, p. 343. Among the English breeds were the Southdown, the Cotswold, the Hampshiredown, the Shropshiredown.

[12] *Ibid.*, pp. 333, 342-43.

ket. In 1892, the editor of the *Sheep Industry of the United States,* published by the Department of Agriculture at Washington, noted that although the mutton type was the demand of the day, it was not generally popular with the breeders of Vermont.[13] Indeed, in that very year, the Register of the Vermont Merino Sheep Breeders' Association commended its members for not having been "induced to give up great improvements . . . heretofore attained in the value of their fleeces," and warned them not to undertake a change in such haste as "to create a large, long-legged, gaunt, imperfectly-shaped sheep neither profitable to grow wool or to produce mutton."[14]

During the last two decades of the century the number of sheep in northern New England fell steadily. In Vermont it decreased from 440,000 in 1880 to 334,000 in 1890, and to 297,000 in 1900—less than one-fifth the number at the height of the industry in 1840—while in New Hampshire it fell from 212,000 in 1880 to 132,000 in 1890, and to 105,000 in 1900, also less than one-fifth of the 1840 figure. The 566,000 sheep in Maine in 1880 had dropped to 370,000 by 1890, but by the end of the century the total had risen to 420,000, about two-thirds of the 1840 returns.[15]

Competition from cheap wool produced in the West was the major factor in the decline during these years, as it had been in the fifties and sixties.[16]

Here in New Hampshire [declared the state agricultural report in 1880] where our sheep have to be housed and fed six months of the

[13] *Ibid.*, pp. 327-28.

[14] *Register of the Vermont Sheep Breeders' Association,* Vol. IV (1892) as quoted in *Special Report on the History and Present Condition of the Sheep Industry of the United States,* p. 323.

[15] Connor, "A Brief History of the Sheep Industry," p. 329; Reports of the Fourteenth Census, Vol. V: *Agriculture,* p. 575. For exact figures, see below, notes 98, 99, and 100.

[16] In some localities, a deterioration in pasturage caused by "a long term of exhaustive cropping" was held partially responsible for the decrease in sheep. See Batchelder, "The Agriculture of New Hampshire," p. 83; Chester, *History of Jaffrey, New Hampshire,* p. 77; W. W. Hayward, *History of Hancock, New Hampshire,* p. 77. The soundness of this contention is, however, questionable.

year, we cannot realize that profit which the great ranch owners of the southwestern territories do, where the sheep run and graze . . . nearly the whole year.[17]

The increased production of wool in Australia and other foreign countries[18] was a further cause, for it lowered world prices, and, especially after the revision of the tariff in 1883, offered formidable competition in the markets of the United States.[19]

Another element in the wane of sheep raising, felt seriously for the first time in this period, was the continual loss occasioned by the ravages of dogs among the flocks. After making allowances for the other deterrent factors at work, the depredations of these animals was probably the most important reason for the selling of thousands of sheep. Many a hill-country farmer described this plague as the immediate ground for giving up his flock. "Dogs are the most fatal enemy of our sheep-folds," declared a New Hampshire commentator in 1877.[20] As the dogs increased, the number of defenseless animals killed by them grew greater.[21] Once a dog acquired a taste for sheep, he rarely lost it. Dog-tight fences were expensive to construct and difficult to maintain. The burden fell most on the small flocks, for the farmer with a large number of sheep might hire a shepherd, or herd them at night in a dog-proof enclosure, but even this was very costly, and the general attitude in the face of continued raids was one of discouragement.

Although by the end of the century, the custom of reimbursing the owners from public funds for sheep so killed was beginning to come into force,[22] only the price of a common

[17] New Hampshire Board of Agriculture report for 1880, p. 443.

[18] For the five years ending with 1870, the wool exported annually from Australasia amounted to an average of 148,000,000 pounds; for the five years ending with 1890, the average annual export was 647,000,000 pounds, an increase of 337 percent.—Connor, "A Brief History of the Sheep Industry," p. 137.

[19] *Ibid.*

[20] *One Hundred Years of Rural Progress*, p. 10.

[21] *New Hampshire Agriculturist*, I (June, 1895), 34; New Hampshire Board of Agriculture report for 1880, p. 443.

[22] U. S. Industrial Commission, *Report*, Vol. X, Part 2, p. 899.

sheep was usually allowed for damages; farmers with small flocks of pure-bred animals were insufficiently compensated. Moreover, those owning ordinary grades were likely to find, after the best part of their flocks had been killed in a single night, that the town sheep funds were exhausted. Some idea of the effect of these devastations may be gained by reading the testimony of the secretary of the Massachusetts Board of Agriculture before the United States Industrial Commission in 1900:

> The after-effect of fright upon sheep is something wonderful. I went to one farmer's house where his sheep had been mutilated by dogs and I saw them in different conditions. It was enough to make anyone sick. . . . I asked that the farmer be paid liberally and the award went to the County Commissioners and was paid. Six months later, he asked me if I would come to his place. I went over there and saw his flock of sheep and he had not been half remunerated for the loss. The number of sheep that had produced no young and the quality of the young showed the after-effect of the fright on the flock . . . and there was no remedy whatever; the farmer had to suffer the loss. There are no sheep upon that farm today.[23]

While the sheep industry on the whole did not continue to be the main source of income after the seventies, in certain localities it held on longer than in others. In Lyme, New Hampshire, for instance, it was still the chief occupation until 1890, and, while the number of animals in the town reached its height in 1855, when there were over 13,000, up to 1886 it never fell below 6,000.[24] In a *County Gazetteer* issued in the latter year, sixty-eight of the seventy-four farms in Lyme run by "livestock breeders and dealers" advertised sheep alone, while only six specified cattle or swine in addition.[25] Again, in the Windsor region in Vermont, sheep husbandry was of major importance as late as 1884. The compiler of *The Gazetteer of Windsor*

[23] *Ibid.*

[24] Goldthwait, "A Town That Has Gone Downhill," p. 546.

[25] P. H. A. Claflin, "Lyme," *Gazetteer of Grafton County, New Hampshire, 1709-1886,* edited by Hamilton Child, as quoted in Goldthwait, "A Town That Has Gone Downhill," p. 548.

*County,* published in that year, gathered detailed information concerning the farms and other enterprises in each township. The small town of West Windsor, which contained eighty-three farms,[26] reported sixty flocks of sheep totaling 6,741 individuals, an average of more than 112 animals per flock. Seventy-five percent of her farmers still kept sheep, and depended upon the sale of wool for a considerable part of their living. It is interesting to note that the *Gazetteer's* questionnaire covered only three points: the number of sheep on the farm, the number of acres, and the number of trees in the sugar orchard. Dairying was not considered of sufficient importance to warrant special investigation.[27]

In most areas, however, the inhabitants were coming, by force of circumstances, to depend upon the dairy industry for their greatest source of income. In the sections nearer southern New England, dairying already had a firm footing at the beginning of this period. Although other portions of the southern part of the hill country were affected,[28] this tendency was particularly noticeable in lower New Hampshire. Londonderry, in the southeastern part of the state, reported to the Board of Agriculture in 1871 that its citizens were dependent upon, in order of their importance, "milk, butter, poultry, eggs, hay, apples, sales of stock, wood and lumber," and Chester and Sandown, in the same region, gave a similar account, while Hollis, on the southern border, noted, "Our farmers are about equally divided in raising stock and selling milk.[29] Other New Hampshire towns swung to dairying in this decade and the next. Many a farmer of Hillsborough, west of Concord, for instance, turned at this time to the making of butter. This was exported

[26] The farms averaged about 140 acres.

[27] *Gazetteer and Business Directory of Windsor County, for 1883-1884,* pp. 541 *et seq.*; Wilson, "The Roads of Windsor," pp. 385-86.

[28] See, for example, Hiland Paul, *History of Wells, Vermont,* p. 13; Joslin *et al., History of the Town of Poultney, Vermont,* p. 81.

[29] New Hampshire Board of Agriculture report for 1871, pp. 36, 43, 45, 68, 101.

weekly by railroad, and brought "a good price and a sure sale during the winter months."[30] By the late eighties, a farm in Wilmot, New Hampshire,[31] which kept about 250 sheep in the sixties, had gone over to the production of milk, supporting about 25 cows for that purpose.[32]

In Maine, as early as 1868, the state Board of Agriculture advised farmers to give more attention to dairying, and less to the raising of sheep. In a section devoted to "The Comparative Profit of Cattle and Sheep," the Board's report for that year contained some convincing statistics. Stating that the cost of keeping one cow for a year was approximately equal to that of eight sheep, it estimated that the gross annual income from five cows would amount to $357.50, of which $40.00 would come from the sale of calves, $250.00 from cheese, and $67.50 from butter. On the other hand, forty sheep would bring in but $210.00, $120.00 from the sale of lambs, and $90.00 from wool, leaving a difference of $147.50 in favor of the cows.[33]

Still other factors led the farmers of northern New England to place more emphasis on the production of butter and cheese. Dairying enabled the husbandman to utilize all the family to a degree not remotely possible in wool production. Furthermore, the price of wool, as in the decades from 1840 to 1870, was constantly subject to wide fluctuation, while there was a steadily growing demand for dairy products from near-by industrial areas.[34] Nonetheless, the average hill-country husbandman shifted from sheepraising to dairying only because he had to. The care of cows was a much less attractive task than the

[30] *History of Hillsborough County, New Hampshire*, p. 406.

[31] This town was still farther north.

[32] Metcalf, "A Typical New England Farmer," p. 382.

[33] Maine Board of Agriculture report for 1868, pp. 9-10. The board calculated that each ewe would have one lamb which would sell for $3.00, while the 40 sheep would shear 160 pounds, selling at 56¼ cents a pound.—*Ibid.*

[34] Connor, "A Brief History of the Sheep Industry," p. 117. In the last four decades of the nineteenth century, the rural population of New England decreased 32 percent, while the number of consumers increased 110 percent.—A. W. Gilbert, "What About Milk," p. 2.

herding of sheep. Milking was a tedious job. In summer the mosquitoes feasted on cow and man, and in winter the cow barns were filled with evil-smelling odors. Then too, the dairyman was far more confined than the sheep raiser. The cows must be milked twice a day, and the milk taken care of at once. The dairy farmer had to begin work as early on Sundays as on other days, and if he went away from the farm in the afternoon, he had to be back in time to "get the cows in" and milk them. The man who raised sheep had no such chores. Indeed, during the summer season sheep required little more attention than to be salted once or twice a week.[35] Under these circumstances, sheep husbandry was given up with regret.

> No more [lamented a Vermont farmer in 1877] will we see again our rival wool buyers as they go hurry-skurry past and over each other in their eager scramble to be first at your wool-rooms. . . . Is it no vexation to find . . . that it is the DAIRY or nothing?[36]

So strong was the interest in maintaining the sheep industry that in the seventies local Granges held debates as to the advisability of turning from sheep to cows. At a meeting of the Patrons of Husbandry in South Weare, New Hampshire, in 1872, for example, one advocate of sheep testified that those animals paid best by a very large amount: that one cow would eat as much hay as twelve fine-grade sheep; and that the latter would "get their living one or two months longer in pasture than cattle." Moreover, they yielded "a three-fold income: lambs, wool, and mutton," an advantage which no other stock afforded. His opponent declared against continuing sheep raising. His animals were constantly afflicted with the "foot-rot"; in proportion to the amount of food consumed, less manure was produced by them than by cattle, thus lessening the yield of hay, corn, and potatoes by lack of fertilizer; and sheep were short-lived while cows were "at their best at twelve years old."

[35] New Hampshire Board of Agriculture report for 1878, p. 451.
[36] D. H. Rice, "Discouragements of Farming," p. 87.

The most telling argument was reserved for the last. The speaker said that he had plenty of wool on hand and no sale for it.[37]

When the farmer raised wool and then could not get rid of it, he was faced with the absolute necessity of turning to a commodity for which there was a market. The production of dairy goods was the answer, and the industry grew apace.

### Stimulating Factors in the Growth of Dairying

In addition to the attraction of better and surer returns, the dairy industry was stimulated by a number of other circumstances, the most important of which was the introduction and extension throughout northern New England of associated dairying. Up to the fifties only private dairying was carried on in the hill country. Butter and cheese were made on the farm, and cream was obtained by setting the milk in shallow pans and skimming off the top.[38] Little was produced after cold weather set in. Early in winter the farmers with larger herds removed from their cool cellars and took to the city markets what had been made while the cattle were in pasture. Those who kept a few cows as well as their sheep generally sold their output to local merchants, frequently taking in return goods from the store.[39] The making of butter and cheese involved a great deal of labor; when the hill-country husbandmen began to devote more attention to the dairy industry, cheese factories and, later, creameries were built, and the growth of associated dairying ensued. This system involved the manufacture of but-

[37] After the debate, the question was submitted to the members of the Grange on its own merits, with a nearly unanimous vote in favor of sheep. (New Hampshire Board of Agriculture report for 1872, p. 588.) A decade and a half later, when the history of Weare, N.H., was published, the author observed fondly, "The click of the shears as the wool is clipped is sweet music in the barns. Weare has been celebrated for her flocks."—Little, *History of Weare, New Hampshire*, p. 465.

[38] H. W. Vail, "A Brief History of the Vermont Dairymen's Association," p. 107.

[39] F. P. Wells, *History of Barnet, Vermont*, p. 242.

ter or cheese in a centrally located factory, usually owned by a proprietor, although in the late eighties and in the nineties a group of farmers sometimes controlled its management.[40] The system was inaugurated in New York in 1851[41] and soon spread to northern New England, being used in the beginning solely for cheese production. The first cheese factory in this territory was established in 1854 at Wells, in the southern part of Vermont on the New York border;[42] within the next decade and a half, the contiguous towns of Pawlet and Poultney possessed similar facilities.[43] Others were also organized, and by the end of the century Vermont reported a total of sixty-six, twenty-seven of which were in Rutland County in the west central portion of the state.[44] By 1860 New Hampshire had one cheese factory, with two by 1870, and the number increased steadily through that decade.[45]

Maine was the last to adopt associated dairying. The first factory in that state was not constructed until 1871, but by 1873 there were twenty in operation, with eight more organized and almost ready to begin work.[46] By 1876 the number had mounted to over sixty, but by 1881, it had dropped to thirty, "only three of which," according to the report of the Maine Board of Agriculture, "did business enough to warrant a fair income to the milk owners and operators." Too many factories

[40] The first coöperative creamery in New Hampshire, and probably in the hill country, was established in 1885 at Epsom, in the southeastern part of the state.—New Hampshire Department of Agriculture report for 1918-20, p. 105.

[41] Maine Board of Agriculture report for 1871, p. 73.

[42] Hiland Paul, *History of Wells, Vermont*, p. 13.

[43] The one at Pawlet was built in 1864 (*The Vermont of Today*, II, 588), and the one at Poultney in 1866. The latter took care of the milk from 450 cows in the vicinity.—Joslin, *et al. A History of the Town of Poultney*, p. 83.

[44] Vermont Board of Agriculture report for 1899, pp. 125 *et seq.*

[45] New Hampshire Board of Agriculture report for 1871, p. 281; L. M. Davis, *A Survey of Dairy Marketing Conditions and Methods in New Hampshire*, p. 33.

[46] Maine Board of Agriculture report for 1873, p. 402. "Associated dairying," declared the Secretary of the Board, "is to work vast good to the farming community of Maine."—*Ibid.*, p. 354. See also Maine Board of Agriculture report for 1872, p. 383.

had been built, and the West had begun to compete in cheese making.[47] By 1900 there were just fourteen in the state,[48] while the production of factory-made cheese had dropped from 777,000 pounds in 1879 to 553,000 in 1899. In New Hampshire, however, the 103,000 pounds made in factories in 1889 (no figures are given for 1879) mounted to 116,000 in 1899, while in Vermont a fluctuation occurred, 4,475,000 pounds being produced in 1879, 5,582,000 in 1889, and 4,713,000 in 1899.[49]

It was in the production of butter that associated dairying proved most beneficial to the hill country. The making of this commodity in the creamery not only saved the running of separate churns, thus relieving the farmers' overworked wives, but it insured uniformity of quality and freshness. The demand was greater and the price was higher than for the general run of privately made butter, which was often of uncertain character.[50] The extension of butter factories in northern New England did not take place until the eighties. In 1883 Maine had only one creamery in operation, but within the next year the number increased to nine.[51] By 1896 there were forty-eight, thirty-three of which paid the farmers in that year $924,000, about $250,000 of which was realized from the export of sweet cream.[52] In 1900 half of the products of the forty-nine creameries in the state were sent south in the form of cream. Since cream was selling for from $1.10 to $1.20 a gallon, and since in the form of butter the same amount would bring in only from 90 cents to a dollar, its exportation as cream increased rapidly. While in 1885 only a small quantity was sold, in 1900 at least half a million dollars' worth was shipped out, the output for

[47] Maine Board of Agriculture report for 1881, p. 206.

[48] Maine Board of Agriculture report for 1900, p. 44.

[49] Reports of the Fourteenth Census, Vol. V: *Agriculture*, p. 664.

[50] New Hampshire Board of Agriculture report for 1888, p. 206.

[51] Maine Board of Agriculture report for 1883, p. 8; report for 1884, p. 5.

[52] Of these thirty-three (which answered the questionnaire addressed to all), twenty-eight were proprietary and five owned and operated by the farmers themselves.—Maine Board of Agriculture report for 1896, pp. 113-4.

that year being one-third more than that of the preceding year.[53] Nonetheless, Maine's factory-made butter production mounted enormously in the latter years of the century. In 1879, six thousand pounds were reported; in 1889, one million and a half; and in 1899, four million and a half.[54]

A similar development occurred in New Hampshire. The one hundred thousand pounds of creamery butter produced in 1879 had jumped to two million pounds ten years later, and to five million by 1899.[55] In 1887 the state possessed thirteen butter factories, ten of which were coöperative and three proprietary,[56] while by 1890 the number had risen to thirty,[57] and by the end of the century it had mounted to fifty-three.[58]

The manufacture of butter in creameries during this period reached its highest point in Vermont. In 1879 the state reported five thousand pounds so made; in 1889, five million; while by 1899 the amount had soared to twenty-two million pounds,[59] produced in 189 creameries[60]—more than three times the number in either Maine or New Hampshire.

Notwithstanding the noteworthy expansion of associated dairying by 1900, many hill-country farmers were still manu-

[53] Maine Board of Agriculture report for 1900, p. 44.

[54] Reports of the Fourteenth Census, Vol. V: *Agriculture*, p. 661.

[55] *Ibid.*

[56] New Hampshire Board of Agriculture report for 1888, p. 223. These thirteen creameries produced 600,000 pounds of butter that year.—*Ibid.*

[57] Granite State Dairymen's Association, *Report of the Sixth Annual Meetings* (Jan. 10, 1890, Plymouth), p. 1.

[58] L. M. Davis, *A Survey of Dairy Marketing Conditions and Methods*, p. 33; Batchelder, "The Agriculture of New Hampshire," p. 128. New Hampshire butter won the highest prize at the Chicago World's Fair, 1893.—*Ibid.*, p. 129.

[59] Reports of the Fourteenth Census, Vol. V: *Agriculture*, p. 661. In the nineties Vermont boasted the largest butter-making creamery in the world, located at St. Albans in the northwestern part of the state. In 1892 it had about 1,000 patrons, who owned approximately 15,000 cows. In that year the establishment produced 2,060,000 pounds of butter, the largest amount made in one day being 18,000 pounds.—Vermont Board of Agriculture report for 1894, p. 275.

[60] Of which 23 were in Orange County, 21 in Chittenden, 21 in Washington, 20 in Addison, 18 in Orleans, 17 in Caledonia, 15 in Rutland, 14 in Windsor, 10 in Franklin, 9 in Windham, 8 in Lamoille, 6 in Grand Isle, 4 in Essex, and 3 in Bennington.—Vermont Board of Agriculture report for 1899, pp. 125 *et seq.*

facturing their dairy products at home, either because of the impossibility of getting their milk or cream to a factory, or, in the case of some who were especially expert in butter making, because they had built up an established clientele which offered a better market. In 1899 four times as much butter was produced in Maine on the farm as in the creamery, and in New Hampshire six million pounds were churned at home and five million outside, while the twenty-two million pounds made in factories in Vermont was only four million pounds greater than the amount put out through private dairying.[61]

Nevertheless, the new system had great influence. In addition to lessening the burden placed upon the farm household, it offered a good market for the milk of thousands of hill-country husbandmen, and insured a regular and reliable cash income.[62] By tending to make production more uniform and of higher quality, its advent was of especial benefit to those who were unskilled in butter and cheese making. As the President of the Granite State Dairymen's Association pointed out in 1897, "The factory system . . . is a God-send to a large class who lack the elements of success in any branch of farming."[63]

Another factor which furthered the development of the dairy industry during the last thirty years of the century was the inauguration of more efficient methods of production. The general manner of caring for cows in New England during the earlier decades of the preceding period was termed by one observer "not . . . an inapt subject of presentment before a grand jury,"[64] but now increasing attention was placed upon their

[61] Reports of the Fourteenth Census, Vol. V: *Agriculture*, pp. 660-61.

[62] Maine Board of Agriculture report for 1870, pp. 338 *et seq.*; report for 1871, p. 37.

[63] Granite State Dairymen's Association, *Report of the Thirteenth Annual Meetings* (Rochester, Nov. 30, 1897), p. 7.

[64] Charles L. Flint, *Eighty Years of Progress in the United States*, I, 38. The hill-country farmer of that day had no honorable heritage in the proper care of domestic animals. The following indictment, printed in 1775, indicates the reactions of one traveler to the method common at that time: "Most of the farmers in this section [New England] are in whatsoever concerns cattle, the most

proper care. Winter dairying became more common—a break with the custom of milking cows during the seven spring, summer, and fall months, and allowing them to go dry in the winter.[65] In the seventies and eighties growing numbers of farmers stored enough hay to last all winter, supplementing it with purchases of Western grain.[66] Another innovation was the introduction of the silo, which entered the hill country in the early eighties.[67] Succulent fodder in the form of ensilage was soon provided for the dairy cows throughout the winter by a few of the more progressive farmers.[68]

Other improvements which benefited the dairy industry were the centrifugal separator and the so-called "Babcock Tester" for measuring the quantity of butter fat in milk. Although the separator, invented in Sweden, was brought to this country in

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negligent, ignorant set of men in the world. . . . There is scarce any branch of rural economy which more demands attention and judgment . . . but the New England farmers have in all this matter, the worst *notions* imaginable."—*American Husbandry*, I, 80.

[65] H. W. Vail, "A Brief History of the Vermont Dairymen's Association," p. 109. This was another heritage from colonial times. An observer noted before the American Revolution, "All the inhabitants give their cattle in winter is only the husks of their Indian corn, unless it be some of them that have a little wheat straw; neither do they give them any more of these than will serve to keep them alive: by reason whereof, they venture into the marshy ground and swamps for food where very many of them are lost." (Quotation from material written before the Revolution, date not given, printed in Flint, *Eighty Years of Progress*, I, 38.) Another contemporary observed that the colonial farmers "neither housed nor milked their cattle in winter, having a notion that it would kill them."—*Ibid.*

[66] F. P. Wells and Edward Miller, *History of Ryegate, Vermont*, p. 194. See also p. 99, note 5.

[67] The first one in the United States was constructed in 1873 (Larson, "The Dairy Industry," p. 315), and the first in New England was built at Billerica, Mass., in 1879. Two years later one appeared in Vermont, at Essex (H. W. Vail, "A Brief History of the Vermont Dairymen's Association," p. 109), and the same year one was erected in Sanbornton, N.H. (Runnels, *History of Sanbornton, New Hampshire*, p. 296).

[68] The dairy production continued to be greatest during the summer season, however, and was generally larger than the market demanded at that time. During the last week of August, 1890, for instance, a total of 4,000,000 pounds of butter were shipped to New York City from different parts of the country, while the consumption there in that period was only 1,000,000 pounds.—Rollin C. Smith, "Dairying in Vermont," p. 325.

1882,[69] cautious hill-country husbandmen viewed the "contraption" with suspicion.[70] As late as 1894 a few conservative farmers declared at a meeting of the Vermont Dairymen's Association that the best grade of butter could not be made by this process, but when in the latter years of the century butter from separated cream began to capture prizes, the machine was accepted by everyone.[71] Cream could now be produced more conveniently and economically for the butter factories as well as for home manufacture.

The Babcock Tester, developed in the United States in 1890,[72] was an instrument used in the creameries to determine the average richness of the milk brought in by each farmer. The quantity of butter fat was ascertained by taking a composite sample of one man's product and thoroughly mixing a certain amount with an equal quantity of sulphuric acid, which dissolved the casein and set the butter fat free. The mixture was placed in the machine and spun for five minutes. Water was then added and a consequent whirling forced the butter fat into the graduated neck of the testing bottle, making it easy to measure the percentage of fat.[73] Before the introduction of this device, several different methods of evaluating the quality of the material delivered had been in use, none of which were satisfactory. For instance, the *History of the Contoocook Valley Creamery, Henniker, New Hampshire,* notes that the first cream handled by the association, which was formed in 1887, was bought by the inch. So much fault was found with this method that the directors voted to adopt a space system of purchase. Although this proved equally inacceptable, it was employed until February, 1896, when the Babcock test was

[69] Larson, "The Dairy Industry," p. 315.

[70] F. P. Wells, *History of Barnet, Vermont,* p. 243.

[71] H. W. Vail, "A Brief History of the Vermont Dairymen's Association," p. 109.

[72] Larson, "The Dairy Industry," p. 315.

[73] Boston Chamber of Commerce, *Grading and Labelling of Milk and Cream,* p. 17.

inaugurated. This test proved, according to the *History,* "to be practical and satisfactory. The accuracy of this chemical system is rarely ever questioned."[74]

Another means of making dairy production more efficient was the slow but steady improvement in the breeds of milch cows. While widespread betterment did not become evident until the twentieth century, a beginning was made in the last half, and especially in the last quarter, of the nineteenth. Previously, in the decades of the "sheep mania," dairying had been but an incidental part of the business of most farms[75] and, notwithstanding sporadic efforts made to improve the dairy animal,[76] the type of cattle commonly raised in the hill country had belonged to the mongrel native breed graphically described as having "gimlet-handle-shaped bodies with ewe-necks and heads like a hammer."[77] In these years, the "general purpose" cow with both beef and milk attributes prevailed, and few grades of good milking animals were to be found. But when Midwestern cattle, fattened on cheap corn and free grass, began to fill the Eastern markets with beef at prices below the cost of producing it in New England, the raising of livestock for meat went out of favor.[78]

In the decades following the Civil War, when the hill country, as a member of the Vermont Board of Agriculture said in 1890, "literally made a rush into the dairy,"[79] cows were picked up wherever they could be found, whether they sprang from good milking stock or not.[80] Nevertheless, distinct efforts to bring out

[74] *History of the Contoocook Valley Creamery,* p. 1.

[75] Stilwell, Migration from Vermont, p. 52.

[76] In 1837, for instance, two progressive farmers of Poultney, Vt., went to the Albany, N.Y., market, where they bought a two-year-old Durham bull for $400, a fabulous price to the people of their town, where native breeds of that age were selling from $8 to $10.—Joslin *et al., A History of the Town of Poultney,* p. 81.

[77] *Ibid.*

[78] Hubbard and Dartt, *History of the Town of Springfield, Vermont,* pp. 163-65.

[79] Rollin C. Smith, "Dairying in Vermont," p. 325.

[80] *Ibid.*

the dairy qualities were made. In 1866, for instance, a group of twenty farmers in the town of Springfield, Vermont, coöperated to buy from Massachusetts a thoroughbred, short-horned bull, which was used to improve their herds.[81] In the seventies, Jersey blood, which had been introduced into southern Vermont earlier, was brought into the northern part of the state, and gradually the improved stock began to crowd out the native breeds throughout the territory.[82] Similar developments occurred in other portions of northern New England. In 1888, the *History of Weare, New Hampshire,* noted that the farmers in town had "greatly improved their stock," especially with "Devons, Durhams, and Jerseys,"[83] while in 1902 the *History of the Town of Bristol,* in the same state, declared that "The grade of stock is now much superior to that formerly kept and includes the Jersey, the Holstein, and the Hereford."[84]

A further beneficial influence was the formation of state dairy associations. The first one in the United States was established in Vermont in 1869, when over a hundred leading farmers met at the state house in Montpelier for the purpose of devising means to place the industry "on a more solid foundation."[85] In 1874 the Maine farmers followed suit[86] and a decade later New Hampshire fell in line with the establishment in 1884 of the Granite State Dairymen's Association.[87] These organizations

[81] Hubbard and Dartt, *History of the Town of Springfield, Vermont,* p. 163.

[82] F. P. Wells and Edward Miller, *History of Ryegate, Vermont,* p. 194. The Jerseys had come from southern New England. In 1853 there were seventy-five purebreds of this variety and a number of Ayrshires in Massachusetts, the majority of which had been imported by the Massachusetts Society for Promoting Agriculture.—Carver, *Historical Sketch of American Agriculture,* p. 63.

[83] Little, *History of Weare, New Hampshire,* p. 465.

[84] Musgrove, *History of the Town of Bristol, New Hampshire,* I, 444.

[85] Vermont Department of Agriculture report for 1924-26 (Report of the State Dairymen's Association, p. 5).

[86] Maine Board of Agriculture report for 1874, p. 43.

[87] Metcalf, *New Hampshire Agriculture,* p. 43. The association was incorporated in 1903 (Granite State Dairymen's Association, *Report of the Twenty-Seventh and Twenty-Eighth Annual Meetings,* 1912 and 1913, p. 4). "The object

fostered the development of the industry by publishing annual reports containing informative articles. They also held yearly meetings where milk producers could exchange notes with successful farmers from within or without the state. At these gatherings instructive talks were given on such typical subjects as "The Care of the Dairy Cow" and "Butter-Making and Milk-Selling."[88]

A circumstance which stimulated the development of the dairy industry in southern New Hampshire during this period, but which did not affect the rest of the hill country—to any extent—until the next century, was the increased demand for fresh milk and cream to supply the needs of the growing industrial areas close at hand. While a number of farmers were occupied in furnishing these products to the New Hampshire cities along the Merrimack,[89] it was the Boston metropolitan district which became the largest market for fluid milk. When the nearby Massachusetts farmers could no longer meet the requirements of an expanding urban population, the city dealers began to go farther afield for their supplies. They found even before the demand proved too great for neighboring producers, that milk could be imported from outside the state more cheaply than it could be bought at home.[90] As early as 1845, a small

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of the Association," read its Constitution, "shall be to improve the milk and dairy interests of New Hampshire."—New Hampshire Board of Agriculture report for 1884, p. 299.

[88] These meetings were well attended in this period, but less interest was shown in them in the next century, especially in the twenties. Later, the women as well as the men came to them. They formed their own organization, the Women's Auxiliary of the State Dairymen's Association.—Vermont Department of Agriculture report for 1922 (Report of the State Dairymen's Association, p. 59).

[89] For example, Concord, Manchester, and Nashua.—U. S. Department of Agriculture report for 1871, pp. 384-5. "The proximity of Hopkinton to Concord and Penacook," declared an observer in the late eighties, "has laterly given an impulse to the department of the dairy. Improved dairy stock has been introduced to a considerable extent."—Lord, *Life and Times in Hopkinton, New Hampshire*, p. 225.

[90] McFall, *The New England Dairy Market*, p. 24.

quantity was sent from New Hampshire over the comparatively new railroads into Boston, the low price offsetting the added transportation charges.[91] The number of dairymen specializing in this new form of production rose steadily as the metropolitan "milkshed"[92] advanced northward. In the middle sixties a large group of farmers in Wilton, near the southern border of the state, were selling milk to David Whiting and Son, who were running a carload daily to the city.[93] In 1883 a Boston milk line was extended into the valley of the Suncook, northeast of Manchester,[94] and a few years later the dairymen of Weare, to the northwest of Manchester, were reported as exporting many gallons of milk to Boston every day. Although they were getting less than three cents a quart, they found this more profitable than making butter or cheese, or selling their product to the creamery.[95] By the nineties dairymen still farther north were joining in the movement. For instance, at the turn of the century much of the milk produced in Bristol, in north central New Hampshire, was being sold to city dealers and either delivered to a car which left four times a week for Boston, or to the Deerfoot Farm Company, which sent the cream to market and gave the skim milk back to the farmers, who fed it to calves or swine.[96] By 1900 large parts of the southern half of the state, and small sections of southeastern Vermont and southwestern Maine bordering on New Hampshire, were shipping milk into southern New England.[97]

[91] Granite State Dairymen's Association, *Report of the Twentieth Annual Meeting* (Laconia, Dec. 8-9, 1904), p. 80; Bowditch, "Future of Massachusetts Agriculture," p. 274.

[92] See above, p. 10, note 17.

[93] Item from the Wilton correspondent in the *Farmers' Cabinet*, Jan. 7, 1864, p. 7. Before the railroad reached this town, David Whiting had manufactured butter. By 1889, Whiting and Son were shipping six carloads of milk and cream daily into Boston, mostly from southern New Hampshire.—Clough, "Wilton, Past and Present," p. 258.

[94] Walker, *A Collection of Addresses*, Vol. I, Paper No. 5, p. 15.

[95] Little, *History of Weare, New Hampshire*, p. 465.

[96] Musgrove, *History of the Town of Bristol*, I, 444.

[97] In 1900, a train ran through the southeast portion of Vermont every after-

The examination of a few statistics for northern New England during the last three decades of the century will show the effect of these numerous factors upon the growth of the dairy industry. The increase in milch cows in contrast to the decline in sheep is especially noticeable. During this period the number of cows in Vermont mounted 50 percent, from 180,000 to 270,000, while the number of sheep decreased 49 percent, from 580,000 to 297,000.[98] New Hampshire had 27 percent more dairy cows in 1900 than in 1870, a rise from 91,000 to 115,000, while her sheep declined 58 percent, from 249,000 to 105,000.[99] The tendency was less marked in Maine, largely because of the fact that semi-frontier conditions still obtained in large sections of the state.[100] The number of sheep fell but 3 percent, from

noon, taking a number of cans of milk from farmers in South Vernon and vicinity. Another line, over which about 6,000 quarts were shipped daily, entered the state at Bellows Falls. A third firm of Boston wholesalers ran a car through New Hampshire to White River Junction, Vt.—G. M. Whitaker, "Sale and Testing of Milk," p. 106.

[98] The exact figures for Vermont during the last half of the century, (as given in the Reports of the Fourteenth Census, Vol. V: *Agriculture*, p. 573) are as follows:

| | Dairy Cows | Sheep |
|---|---|---|
| 1850 | 146,128 | 1,014,122 |
| 1860 | 174,667 | 752,201 |
| 1870 | 180,285 | 580,347 |
| 1880 | 217,033 | 439,870 |
| 1890 | 231,419 | 333,947 |
| 1900 | 270,194 | 296,576 |

[99] The exact figures for New Hampshire during the last half of the century (from the same source as above) are as follows:

| | Dairy Cows | Sheep |
|---|---|---|
| 1850 | 94,277 | 384,756 |
| 1860 | 94,880 | 310,534 |
| 1870 | 90,583 | 248,760 |
| 1880 | 90,564 | 211,825 |
| 1890 | 109,423 | 131,611 |
| 1900 | 115,036 | 105,113 |

[100] For a discussion of sheep as a frontier crop, see Tilden, "Going or Coming?" p. 22.

435,000 to 420,000, although the number of her dairy cows rose 25 percent, from 139,000 to 174,000.[101]

The increase in the amount of milk produced in northern New England is a still better illustration of the development of the dairy industry. While the figures given by the censuses for the decades between 1870 and 1900 shows a change in the type of data gathered, they indicate the general trend. In 1870 the farmers of Vermont sold 3,800,000 gallons of milk. This does not include, of course, what was made into butter and cheese at home. With the wider extension of associated dairying, they sold, in 1880, 6,500,000 gallons, a gain of 70 percent over the 1870 figure. Most of this was sent to butter or cheese factories in the vicinity, but some was disposed of to consumers in near-by villages or cities. In the same decade, the New Hampshire dairymen increased their sales of milk by 144 percent, from 2,400,000 gallons to 5,700,000, while the Maine farmers augmented their exports by 178 percent, from 1,400,000 gallons to 3,700,000.[102]

In the 1890 census the method of reporting changed. In 1890, all the milk produced on Vermont farms, including what was made into butter and cheese at home as well as what was sold as fluid milk or cream, amounted to 90,700,000 gallons. By 1900 this had risen 56 percent to 142,000,000 gallons, the highest point attained up to the present time. The quantity of milk

[101] The exact figures for Maine during the last half of the century (as given in the Reports of the Fourteenth Census, Vol. V: *Agriculture*, p. 573) are as follows:

| | Dairy Cows | Sheep |
|---|---|---|
| 1850 | 133,556 | 451,577 |
| 1860 | 147,314 | 452,472 |
| 1870 | 139,259 | 434,666 |
| 1880 | 150,845 | 565,918 |
| 1890 | 157,278 | 370,484 |
| 1900 | 173,592 | 420,116 |

[102] Reports of the Fourteenth Census, Vol. V: *Agriculture*, pp. 680 *et seq*; pp. 710 *et seq*.

produced on New Hampshire farms mounted 42 percent in the same decade, from 42,600,000 gallons to 60,700,000, while on the Maine farms it jumped 71 percent, from 58,000,000 gallons to 99,600,000.[103]

Butter and cheese were the chief dairy products of the hill country between 1870 and 1900, and farm as well as factory production reached its highest point during these decades. Seventeen million eight hundred thousand pounds of butter were churned on Vermont farms in 1869; 25,200,000 in 1879; 23,300,000 in 1889; and 18,300,000 in 1899; while the creameries of the state reached their maximum production in 1899, with 22,450,000 pounds. In New Hampshire, butter made on farms attained its top figure in 1889, 5,900,000 pounds being put out in 1869, 7,200,000 in 1879, 7,900,000 in 1889, and 6,300,000 in 1899 while the zenith in factory-made butter came in 1899 with 5,000,000 pounds. In Maine, the farm production reached its maximum in 1899, climbing from 11,600,000 pounds in 1869 to 16,100,000 at the end of the century, while the factory output also touched its highest spot at the end of the period with 4,400,000 pounds.[104]

On the other hand, the farm production of cheese declined steadily during these three decades, although there was a fluctuation and a temporary increase in the amount made in factories. In Vermont the farmers made about 5,000,000 pounds in 1869, 1,500,000 in 1879, 600,000 in 1889, and 400,000 in 1899, while, as we have seen, the factory production of cheese varied from 4,500,000 pounds in 1879 to 4,750,000 in 1899. In New Hampshire the farm figures dropped in similar fashion, falling from 850,000 pounds in 1869 to 100,000 in 1899, while the quantity of factory-made cheese remained about the same, a little over 100,000 pounds. In Maine the rate of decrease was

[103] *Ibid.*

[104] For the complete table, in exact figures, of butter made on farms and in factories, in Maine, New Hampshire, and Vermont, during the period 1849-1919, see Appendix 3.

slower, the amount of farm cheese produced dropping from 1,000,000 pounds in 1869 to 425,000 in 1899, and the factory figures declining but slightly, falling from 6,000,000 pounds in 1879 to only a little less than 6,000,000 in 1899.[105]

These statistics demonstrate how rapidly dairy products became the staple of the hill country, a fact which was recognized by contemporary observers. "The milk farmer has put in his appearance," noted a New Hampshire citizen in 1883,[106] while a decade later the Vermont agricultural report announced that the state's leading industry was her dairy.[107] By 1900, one-half of the farms in Vermont and one-third of those in New Hampshire reported that they looked to the dairy for most of their support, while more than one-fourth of Maine's farms made similar returns. In comparison, the figures for the same year show that 22 percent of the Vermont farms were depending upon the raising of livestock, such as sheep, horses, cattle, and swine, 26 percent of those in New Hampshire and 25 percent in Maine doing likewise, while the production of hay and grain was the most important pursuit on 7 percent of the Vermont farms, 12 percent of New Hampshire's, and 12 percent of Maine's.[108]

Northern New England had by the last quarter of the century entered into a period of readjustment which was to continue into the decades following 1900. Before 1870 the average hill-country farmer succeeded in making a living from general farming—by raising grain, beef, sheep, and other livestock—but because of Western competition in the production of

[105] For the complete table, in exact figures, of cheese made on farms and in factories, in Maine, New Hampshire, and Vermont, during the period 1849-1910, see Appendix 3.

[106] Walker, *A Collection of Addresses*, I, 15.

[107] Vermont Board of Agriculture report for 1893-1894, p. 229. According to the Census of 1890, Vermont was the only Eastern state producing 200 or more gallons of milk for each inhabitant and she was surpassed in the Union only by Iowa.—Reports of the Eleventh Census, Vol. III: *Agriculture*, p. 41.

[108] *Abstract of the Twelfth Census*, p. 228; for the complete table, see Appendix 4, Table II.

staples and the impossibility of using the bigger farm machinery on his rough irregular fields, he was beginning to find that it was more profitable to cultivate a smaller proportion of his tillage land very thoroughly than to attempt to work a large amount in poor fashion.[109] The difficulties of the latter decades of the century made it increasingly apparent that a further change to specialized and intensive farming must be made if agriculture was to survive, and by the nineties efforts to establish it along new lines and to readjust production to new conditions were well under way. "We are now in a transition state, passing from the system of extensive farming to that of intensive farming," declared an observer in the Vermont agricultural report for 1891-92.[110] The former type of agriculture has always been carried on in new lands, where the inhabitants are few and scattered, while methods giving the greatest return per acre are maintained in regions near the centers of population.[111] By the turn of the century, the hill country was convinced that its only salvation lay in the development of the latter system.

[109] This explains to some extent why there occurred a marked increase in the value of products per acre and per farm from 1880 on, even when allowance is made for the changes in the purchasing power of the dollar and the constant decrease in the acreage of improved land.—Hardy and Henderson, *Description of Connecticut Agriculture*, pp. 48-54.

[110] J. O. Sanford, "Intensive Farming," p. 278. This idea of transition was understood very widely. A French observer noted of the region in 1894, "C'est même moins une crise qu'une transformation sans chance de retour. Ce n'est pourtant pas une situation désespérée, puisque la terre a des emplois divers et que, si des champs reviennent à leur ancien état forestier, d'autres se couvrent de légumes."—Levasseur, *L'Agriculture aux États-Unis*, p. 188.

[111] McFall, *The New England Dairy Market*, p. 57. The cultivation of a few staple crops on a large amount of land is comparable to the production of raw materials in industry, while intensive agriculture is more like the manufacturing phases of industry, in which raw materials are purchased and elaborated into manufactured goods.—*Ibid.*

Before the last quarter of the century, any form of intensive agriculture for New England was decried. "Do not expect an indiscriminate system of high farming to be applied to all New England," said a speaker to farmers at an agricultural society meeting in 1858. G. B. Loring, *Address before the Hampshire, Franklin, and Hampden Agricultural Societies*, p. 20. See also opinion of J. C. G. Kennedy in *Eighth Census of the United States, 1860, Agriculture*, p. viii.

Circumstances were gradually changing northern New England from a meat-wool-and-grain region to a dairy-fruit-potato-poultry-and-truck-crop territory.[112] This change of necessity caused considerable hardship, for much of the land which was serviceable under the old system was of little value under the new.[113] The capacity for successful self-readjustment was limited by the fact that the agriculture of the region was dominated by natural conditions which restricted the forms of producing units to which it was economically adaptable. The abandoned farms were largely examples of a gradual but wholesale elimination of marginal producers caused by this shift. "If you will have an omelet," said Napoleon, "you must break some eggs."[114] Even for those on the more favorably situated farms, the process of readjustment was painfully slow, and it was undertaken with much reluctance on the part of the New England husbandman, who had followed for generations along the same hard-beaten course.[115]

Although the discussion of the innumerable factors causing the abandonment of farms and the decline of population may have given such an impression, the New England hill country had by no means become a waste land of deserted homesteads and decaying villages. Thousands of fertile and promising farms covered the wider valley stretches and the upland regions where the land was rolling rather than mountainous, and hundreds of quiet little villages continued to raise the white spires of their churches above the surrounding trees. It is their history that we propose to follow.

[112] *New England Homestead*, Vol. LXXXI, No. 18 (Oct. 30, 1920), p. 1.

[113] McFall, *The New England Dairy Market*, p. 57.

[114] Hartt, "New England, the National Wallflower," p. 50.

[115] J. H. Putnam, "The Depopulation of Our Rural Districts," p. 135. For further material on this subject, see Hartt, "The Regeneration of Rural New England," p. 505; A. G. Robinson, "Notes of a Returned New Englander," p. 1852; G. F. Wells, "The Status of Rural Vermont," pp. 88-90; "Private vs. Public Resorts," p. 1322; "Causes Affecting Farm Values," U. S. Department of Agriculture report for 1905, p. 517; Burnham, "Old Home Week in New Hampshire," p. 652; E. S. Brigham, "The New England Farm," p. 15; Lefferts, "New England Farming," p. 194.

# SPRING: 1900-1930

By the early years of the twentieth century, the New England hill country had entered its most recent stage of development. From certain aspects, the designation of this phase as Spring may seem over-optimistic, for it is plainly evident that the new season gave no promise of a summer of great growth, such as the region had experienced a century earlier. A full appreciation of the situation at the turn of the century, however, warrants the application of this title to the three decades following, notwithstanding continued losses in agricultural population and steady shrinkage in improved acreage during these years. The winter period just passed had brought an end to thousands of submarginal farms; it had made it obvious that many others, upon whose unproductive soil the conscientious labor of the hill farmer was ill expended, must soon be abandoned; and it had forced upon the more favorably located places a readjustment of their output to meet modern conditions. Particularly beneficial to their well-being during these years were the marked rise in the demands from southern New England for fresh milk and cream and the annual appearance of increasing numbers of summer visitors; while the organization of farm extension work and the introduction of daily mail service and of such inventions as the automobile and the telephone acted as stimulating forces in the rural life of northern New England.

The further changes in production by which the farmers endeavored to cope with outside competition, the suggestions—efficacious and inefficacious—made in an attempt to cure the ills of the hill country, the development of such quickening influences as summer trade and more immediate contacts with the outside world, the growth of the dairy industry, and lastly, a discussion of the general conditions in the region between 1900 and 1930, will constitute the remainder of this study.

# X

## READJUSTMENTS AND SPECIALIZATION

*The "shiftless" farmer, the lazy farmer, the incapable farmer, all . . . must go to the wall in a day which makes . . . intelligent activity little short of a* sine qua non *of even existence. The land which can no longer be made to produce . . . cereals for profitable competition in the market must be diverted to other uses. Rural New England is in a state of transition, of adjustment to new conditions.*[1]

THE trend from extensive to intensive agriculture, well under way by the nineties, continued with accelerated pace after the turn of the century. Even conservative farmers began to retrench their positions by abandoning their rougher tillage lands and concentrating on the remainder, while more and more submarginal farms were allowed to revert wholly to forest. Between 1899 and 1909, the amount of improved land in Vermont decreased from 2,126,624 acres to 1,638,965 acres.[2] Unless a field was fit for intensive cultivation, it was not worth while to keep it farmed.[3] On the other hand, in 1899 only 56 percent of the improved land in the state was occupied by crops,[4] while in 1909 73 percent was being worked.[5] The farmer in New Hampshire was becoming similarly discriminating. Indeed, by 1910 he was tilling on the average only a little over a quarter of the land he owned.[6]

Under this more intensive cultivation, the average yield per

[1] A. G. Robinson, "Notes of a Returned New Englander," p. 1853.

[2] Reports of the Twelfth Census, Vol. V: *Agriculture*, p. 694; Reports of the Fourteenth Census, Vol. V: *Agriculture*, pp. 36-37.

[3] "As for intensive farming," said Theodore Roosevelt in 1911, "it is usually unwise to try it on very cheap and remote land."—Roosevelt, "The Abandoned Farm," p. 940.

[4] Cereals, hay and forage, potatoes, vegetables, small fruits, etc.

[5] Thirteenth Census, Statistics for Vermont, pp. 599-600.

[6] Leifferts, "New England Farming," p. 191.

acre of several products became higher in New England than in the Middle West. By the latter part of the second decade of the century, the earning capacity of the acres tilled by the New England farmer exceeded that of the Middle Westerner in five leading crops, as shown in the table.

AVERAGE VALUE PER ACRE OF FIVE CROPS, 1916, 1917, 1918[7]

| | Corn | Barley | Oats | Potatoes | Hay |
|---|---|---|---|---|---|
| New England states | $73.71 | 34.30 | 28.41 | 197.23 | 24.41 |
| Michigan, Wisconsin, Minnesota, Iowa, and Missouri | 34.61 | 28.15 | 22.63 | 92.36 | 20.43 |
| Difference per acre in favor of New England | 39.10 | 6.15 | 5.78 | 104.87 | 3.98 |

Concurrently, there occurred a change in the type of product raised. By the turn of the century it was plain that the main staples of old-time farming were no longer profitable. A visitor to New England in 1906 warned its farmers that they should not try to compete with the West in growing grains, beef, or the lard types of pork, for to do so would be agricultural suicide. He doubted if they would be able to produce butter and cheese in the face of Western rivalry. On the other hand, Western competition could not interfere with the growing of hay for New England markets, with the production of milk for near-by cities, or with the raising of such tree crops as quality apples.[8]

During the first three decades of the twentieth century, the hill-country farmers began to take advantage of their geographic position by specializing increasingly in produce with which regions outside New England could not easily compete. The less perishable and more conveniently transported livestock products, such as beef, mutton, wool, butter, and cheese, gave place in large measure to products which, because of the

[7] E. S. Brigham, "The New England Farm," p. 10. Mr. Brigham secured this information from the monthly *Crop Report* of the U. S. Department of Agriculture for December, 1918.

[8] Snow, "Impressions of New England Farming," p. 15.

quickness with which they spoiled, had to be produced close to the market in order to retain the qualities which recommended them to the consumer. High-grade eggs and fluid milk, as distinguished from the powdered or condensed variety or milk in the form of butter and cheese, were in this class. Perishable specialty products, such as market hay and potatoes, on which increasing freight rates tended to give greater advantage to the near-by producer, received more of the farmer's attention.[9] The production of fluid milk rapidly emerged as the major specialty of the period,[10] while the raising of potatoes (particularly for export as seed), maple products, apples, fresh eggs and poultry, and market produce was found to yield better margins of profit than the raising of staples.[11]

In consequence, the growing of cereals suffered a decided decline. This was especially true of the production of corn harvested for grain, which dropped rapidly during these years. Vermont's production went down 89 percent, from 2,300,000 bushels in 1899 to 259,000 in 1929; New Hampshire's fell 90 percent, from 1,100,000 bushels to 112,000; while Maine's declined 90.2 percent, from 645,000 to 63,000. The amount of corn cut for silage, on the other hand, maintained itself fairly well in Vermont, where the increasing herds depended to a considerable extent upon ensilage for winter sustenance; but declined slightly in New Hampshire and Maine, where fewer cows were kept. While the decrease in production of other grain crops was not so pronounced as the decrease in production of corn, there was nevertheless, a decided drop. The production of oats fell about 63 percent in Vermont in the three decades, and in New Hampshire 75 percent, although Maine reported a 4 per-

[9] For instance, in the face of a decided drop in the number of farms and in the improved acreage (see below, p. 347), the total amount of hay produced in 1929 in Vermont exceeded the 1899 figure, while the drop in New Hampshire and Maine was not commensurate with the decline in the number of farms and in improved acreage in those two states.

[10] See below, chap. xv.

[11] Bevan and Heaton, "Why Go West, Young Man?" p. 7.

cent increase. During this period the yield of barley went down 78 percent in Maine, while buckwheat production dropped 88 percent in Vermont, 95 percent in New Hampshire, and 51 percent in Maine.[12]

The production of wheat declined less markedly during these years; the major decrease had occurred in the previous period.[13] The New England farmers had definitely decided that there was no profit in raising it,[14] a far cry from conditions a century earlier, when one James Johnston of Ryegate, Vermont, paid for a farm with the wheat grown upon it in a single season.[15]

The trend away from the old staples and the old methods was stimulated by advice offered throughout the period by authorities on agriculture. In the hope of helping the farmer add to his small annual income, these experts advocated his entering upon various side lines which would not infringe upon his specialty. A brief discussion of these supplementary sources of revenue will indicate the possibilities which they offered.

One specialty recommended was the development of tree crops and fruit raising. It was pointed out that the farmer should give more attention to such crops as butternuts, hazelnuts, beechnuts, and black walnuts. The hilly pasture and the rough brush land could be devoted to growing nut trees, and certain small trees already there might be used for grafting.[16] Although the reported nut crop increased in the first years of the century,[17] few hill farmers found a sufficient number of trees on their lands to make nut harvesting worthwhile. Tree-

[12] See Appendix 3 for table giving the decline in cereals production for each census year between 1899 and 1929.

[13] New England produced 1,227,037 bushels of wheat in 1879, 289,124 in 1889, and 166,125 in 1899, but in 1909 she reported only 114,998 bushels. In 1919, however, as a result of World War prices, she raised 544,786 bushels, but in 1924 this dropped to 118,680.—Artman, *The Industrial Structure of New England*, p. 18.

[14] Lefferts, "New England Farming," p. 191.

[15] F. P. Wells and Edward Miller, *History of Ryegate, Vermont*, p. 138.

[16] J. Russell Smith, *North America*, p. 119.

[17] For instance, the 103,850 pounds of butternuts, hickory nuts, chestnuts, and black walnuts reported as gathered in Vermont increased to 801,825 pounds in 1909.—Thirteenth Census, Statistics for Vermont, p. 601.

crop agriculture was a possibility of the future rather than of the present, for even if nut trees were planted, or grafted, many years must pass before they would bear.

Fruit raising offered better possibilities, since many a northern New England farmer found his farm already endowed with some kind of fruit orchard. Apples were raised easily, but no widespread success was attained in growing pears, peaches, or small fruits.[18] The production of apples in the hill country passed through three different stages.[19] Up to the last quarter of the nineteenth century, they were grown largely for cider and cider brandy.[20] After the mid-seventies, however, the making of these beverages became less popular, and except for a small amount of cider, was practically discontinued. Since the inhabitants of the region at that time saw no other use for apples, a few orchards or parts of orchards were cut down, while most of the rest were neglected and rapidly fell into decay.[21] By the end of the century, however, apples were being used in larger quantities in the towns and cities of the East for eating and cooking purposes, and their production began to be commercially profitable.[22] "Apples for market are now raised on nearly every farm," remarked a history of the town of Bristol, in central New Hampshire. "In 1902 there were shipped from the railroad station in Bristol about 10,000 barrels of apples raised in Bristol and adjoining towns."[23]

Many efforts were made to turn attention toward the possi-

[18] Musgrove, *History of the Town of Bristol, New Hampshire*, I, 449.

[19] Vermont Department of Agriculture report for 1924-26 (Report of the State Horticultural Society, p. 28). This Society was organized in 1896 and in 1925 had a membership of 500, nearly every important fruit grower of the state belonging to it.

[20] *Ibid.* The local history of a town in west central Vermont, published in 1875, mentions the fact that in earlier days, when cider brandy was made in great quantities, there were orchards on almost every farm, and apples were produced in abundance with a home market for them.—Joslin *et al.*, *A History of the Town of Poultney, Vermont*, p. 84.

[21] Joslin *et al.*, *A History of the Town of Poultney, Vermont*, p. 86.

[22] Vermont Department of Agriculture report for 1924-26 (Report of the State Horticultural Society, p. 28).

[23] Musgrove, *History of the Town of Bristol, New Hampshire*, I. 444.

bilities in apple growing. Articles appearing in state publications stressed the belief that many of the rougher, more elevated portions of the hill country offered favorable orchard sites, which, if planted with apple trees and properly managed, would yield a considerable income to the owners.[24] The advantages in air drainage enjoyed by the New England hill farms were also emphasized. Since one of the menaces to fruit was the destruction of buds by late spring frosts, orchards planted on hillsides might escape being frozen when fruit buds in the valley suffered, since the cold air, being heavy, tended to settle on the valley floor.[25] To stimulate interest, orchard meetings were held and demonstrations were given, most of them under horticultural societies in coöperation with the state Departments of Agriculture. Finally, in the twenties, when competition from apple producers in the Northwest cut into the Eastern market, the hill-country farmer was urged to center his attention on quality apples with the distinctive New England tang. That and the freight differential in favor of New England grown products, it was pointed out, could make the growing of apples still profitable.[26]

Although the total production of apples in the northern New England states during this period did not increase in volume except in Maine,[27] the other two states maintained their yield to a noteworthy degree, in spite of the number of hill farms with

[24] See, *e.g.*, Stuart, "Apple Growing in the Hill Towns of Vermont," p. 136.

[25] J. Russell Smith, *North America*, p. 118; J. Russell Smith, "The Agriculture of the Future," pp. 278-79.

[26] The freight cost was often one dollar or more per bushel box on apples shipped from beyond the Rocky Mountains.—J. Russell Smith, *North America*, p. 118.

[27] The northern New England apple production by bushels, 1899-1919, was as follows, according to the Reports of the Fourteenth Census, Vol. V: *Agriculture*, p. 863.

| | 1899 | 1909 | 1919 |
|---|---|---|---|
| Maine | 1,193,165 | 3,636,181 | 4,829,346 |
| New Hampshire | 1,978,797 | 1,108,424 | 1,364,001 |
| Vermont | 1,176,822 | 1,459,689 | 960,252 |

In the face of Vermont's decline, the State Horticultural Society reported in 1925 that there were orchards ranging from fifty to two hundred acres in almost

apple orchards that were being given up. It should be taken into consideration, moreover, that fewer cider apples and more eating apples were raised, and that the quality of the fruit generally improved, the value of the crop thus being enhanced.

During the later years of the second decade and the first few years of the third, considerable publicity was also given to fur farming as a means by which the New England husbandman might increase his cash receipts. Enthusiastic advocates told him about the success of fur ranching on Prince Edward's Island, where, they reported, the demand for breeders had exceeded the supply, and the prices for young silver black foxes had risen to as much as $12,000 a pair. The low cost of keeping the animals and the fact that the routine care necessary in looking after them was even less than that required for cattle or hogs were brought out as points in favor of the undertaking.[28]

But the majority of farmers who attempted the project as a side line found that it was a highly speculative investment. The fox, when raised in captivity, was susceptible to many diseases about which the farmer knew nothing, and the depredations of skunks and weasels were often disastrous. Moreover, a large amount of capital was necessary if fur ranching was to be successful. A man who had thirty foxes and lost five, either through disease or through the attacks of wild animals, might be able to sustain the loss, but the hill-country farmer who bought a pair of foxes for a thousand dollars and lost one, would find his venture ruined. Fur farming was a mania with a few people for a while, and city people sometimes invested in a pair of foxes on shares with a farmer, but declining fur prices and the risks of the undertaking soon left the industry in the hands of a few professionals.

Another specialty on which northern New England began to place more emphasis was the production of eggs for consump-

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every section of the state except the northeast.—Vermont Department of Agriculture report for 1925-26 (Report of the State Horticultural Society, p. 28).

[28] Bolger, "Fur Farming to Save New England Farms," pp. 79-80; Rand, "Silver Black Fox Farming," pp. 620 *et seq.*

tion in near-by urban centers. Vermont raised 76,000,000 eggs in 1899 and 84,000,000 in 1909, a large gain over the 36,000,000 reported in 1879 and the 54,000,000 in 1889.[29] The value of this product rose from $960,000 in 1899 to $1,715,000 in 1909, an increase of 78 percent.[30]

In New Hampshire and Maine a similar situation prevailed. In Maine the yield increased from 162,000,000 in 1899 to 177,000,000 in 1909, while the production in the Granite State mounted from 84,000,000 to 90,000,000 in the same decade, a considerable increase over her 40,000,000 in 1879 and 60,000,000 in 1889.[31] "The poultry industry is one of the best paying branches of farming," declared a New Hampshire husbandman in 1911.[32]

In the latter years of this period the number of eggs produced in the three northern New England states fluctuated, although in every case the yield for 1929 was higher than that for 1899. From 1909 to 1919, the Vermont returns dropped from 84,000,000 to 62,400,000, but the output increased to 76,000,000 in 1924 and to 80,000,000 in 1929. In like manner, the Maine production fell from 177,000,000 in 1909 to 120,000,000 in 1919, but grew to 163,200,000 in 1924 and to 164,400,000 in 1929, a gain of 4,800,000 over the 1899 figure, while the yield in New Hampshire, which dropped from 90,000,000 in 1909 to 60,000,000 in 1919, mounted to 96,000,000 in 1924, and 102,000,000 in 1929.[33]

As Vermont began to offer keener competition in the dairy industry, many farmers in the southern portion of New Hamp-

[29] *Abstract of the Eleventh Census: Agriculture* p. 112; Reports of the Fourteenth Census, Vol. V: *Agriculture*, p. 680.

[30] Thirteenth Census, Statistics for Vermont, p. 598.

[31] *Abstract of the Eleventh Census: Agriculture*, p. 112; Reports of the Fifteenth Census: *Agriculture*, bulletin for Maine, first series of bulletins, p. 5; *ibid.*, for New Hampshire, p. 5.

[32] Statement of Henry A. Wilson of Hollis, in southern New Hampshire, quoted in Boston and Maine Railroad, *A Chance for the Hen in Northern New England*, p. 3.

[33] Reports of the Fifteenth Census: *Agriculture*, bulletin for Maine, first series of bulletins, p. 5; *ibid.*, for New Hampshire, p. 5; *ibid.*, for Vermont, p. 5.

shire changed from dairying to poultry raising. The town of Epsom, for instance, which at the turn of the century was exporting considerable milk to Manchester and Boston, by the middle twenties had given up dairying to a large extent and had become a poultry center, with the largest number of hens of any town in the state.[34] A number of factors led to this shift. Poultry husbandry yielded quicker returns than any other branch of agricultural effort, and the near-by cities of New Hampshire and Massachusetts afforded good markets for fresh eggs and broilers,[35] while husbandmen living on well-traveled routes were able to sell poultry products to passing motorists.[36] In 1930 the New Hampshire Commissioner of Agriculture declared that next to dairying, poultry raising was the most important agricultural industry of the state, and estimated that it brought in $8,000,000 annually."[37]

A few authorities on agriculture recommended the raising of cattle and sheep for those farmers who remained on the isolated, rough, back-hill places, and found intensive cultivation of their land impracticable. They believed that the remote regions where land could be held in considerable areas might be devoted to a combination of forestry and pasturage, with lumber, beef, and mutton as the principal products. The great amount of cheap grass in New England was given as its main qualification for livestock raising. "Everywhere in the summer time, one sees grass growing and no use made of it," wrote Thomas Nixon Carver in 1919.[38]

[34] Earl P. Robinson, "How One Community Turned the Tide," pp. 525 *et seq.* In January, 1923, the farmers of Epsom shipped $30,000 worth of eggs to the cities of Massachusetts and New York.

[35] New Hampshire Department of Agriculture report for 1918-20, p. 2.

[36] One man in Wolfeboro, for instance, in 1925 sold 1,400 fowl in this way.—Sydney Williams, "Profit in Poultry," pp. 363 *et seq.*

[37] Statement of Andrew L. Felker, Commissioner for New Hampshire, quoted in *The Tercentenary of New England Agriculture, 1630-1930,* published by the Commissioners of Agriculture of the Six New England States, p. 15. Most of the industry was concentrated in the southern and eastern part of the state.

[38] Carver, "Mill and Plough," pp. 9-10. In another article, Dr. Carver cited the case of a resident of Wilmot, N.H., formerly a sheep rancher in Montana, who sold his interests there and moved to New Hampshire to start a sheep

Strong obstacles, however, militated against the reintroduction of cattle raising. Grass alone does not fatten livestock and grain cost much more in New England than in the Middle West. "When corn can be bought for seventy cents a bushel in Vermont," complained the annual report of the state Department of Agriculture in 1913, "it costs the Illinois farmer only forty-five cents."[39] During many months of the year, inclement weather made it impossible for the cattle to forage for their own food, and, as Dr. Carver admitted, it was undoubtedly better to allow the waste grass land to revert to forest than to try to save it by using it for pasture, if, in order to keep the livestock over winter, it was necessary to purchase a great deal of grain.[40] Furthermore, the hill farms were generally much too small for such an extensive type of farming, for the owners had inherited tracts of land upon which their forefathers had been carrying on a self-sufficient agriculture. To be sure, when a neighboring farm became unoccupied, the farmer could purchase it at a low price, but few had the necessary capital.[41]

More determined attempts were made to revive sheep raising, especially for the rougher hill country. "Many of the $5 an acre farms,"[42] explained a member of the Vermont Board of Agriculture in 1900, "were well adapted to the sheep industry, but are not so well adapted to dairying; . . . as a consequence of leaving the sheep industry, there was no good use to put these

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ranch. He acquired about 1,000 acres of ordinary rocky, hillside pasture land which he considered to be much more productive than Montana land and about as cheap.—Carver, "What Awaits Rural New England," p. 5749.

[39] Fiske and Abbott, "The Milk Car vs. the Creamery," p. 63.

[40] Carver, "Mill and Plough," p. 10; Carver, "What Awaits Rural New England," p. 5749.

[41] Roosevelt, "The Abandoned Farm," p. 940; K. R. B. Flint, *Town Planning*, p. 43; Stewart, "Master Farmers Succeed," p. 545.

[42] The "$5 an acre farms" were those "which are usually some distance from town, are rather rough and not very well adapted to the use of farm machinery, although quite fertile and productive."—Testimony of Victor I. Spear, for eight years a member of the Vermont Board of Agriculture, in U. S. Industrial Commission, *Report*, Vol. X, Part 2, p. 410.

farms to."[43] Frequent comparisons were made by sheep enthusiasts between the amount of care required by sheep and that necessary for milch cows. A New Hampshire farmer declared in 1918 that there was a place for sheep with the man who did not like to be tied down to dairy cattle,[44] and in 1919 a successful sheep raiser of Plainfield, New Hampshire, in the hills above the Connecticut River, stated that, while the dairyman chased the cow twice a day, sheepmen had time for other activities. Besides caring for his animals, he raised about $500 worth of fruit each year, ample hay for his livestock, and enough to sell to pay for the grain he had to buy.[45]

One well-known authority on the sheep industry admitted that although there was room for considerable increase in the flocks in the hill country through the utilization of those parts of the pasturage area too rough for cows, the expense of providing winter feed would decidedly limit their size. He felt that raising high-grade lambs for the southern New England markets would be the most profitable form of the business, and therefore believed that future gains in the number of sheep in New England would probably be in the form of small flocks grazed largely as scavengers on surplus pasture land for the production of lambs to be marketed in the fall, or kept for the raising of the highest grades of early or winter lamb.[46]

[43] *Ibid.;* see also Ritzman, *The Sheep Industry in New Hampshire*, p. 1.

[44] Tilden, "Going or Coming: New England Getting Back on Her Agricultural Feet," p. 19.

[45] E. C. Daniels as quoted in the *New England Homestead*, Vol. LXXVIII (1919), No. 26 (June 28, 1919), p. 10. Two years earlier, another New Hampshire writer had declared, "A flock of sheep would make a good profitable sideline."—Ritzman, *The Sheep Industry in New Hampshire*, p. 1.

[46] Connor, "A Brief History of the Sheep Industry," p. 165. An illustration of the utilization of a rough and isolated region, on which crop cultivation had been abandoned, was the shipment of 1,100 sheep from drought-stricken Nebraska to Wakefield, N.H., in August, 1934. There the owner of the sheep had purchased 840 acres of land—a wild stretch of scrub oak and sweet fern. This was fenced and the edges of three ponds cleared for watering purposes. A dozen men were employed to cut several hundred acres of hay land, which had not been touched for many seasons, to provide winter feed for the stock. See the *Boston Herald*, Aug. 30, 1934.

Notwithstanding efforts to revive the industry, the number of sheep in the hill country decreased steadily throughout the period. Between 1900 and 1930, it declined 83 percent in Vermont, which reported totals of 296,000 sheep in 1900; 118,000 in 1910; 60,000 in 1920; and 51,000 in 1930. New Hampshire's numbers showed a drop of 80 percent during these years, counting 105,000 in 1900; 43,000 in 1910; 28,000 in 1920; and 21,000 in 1930; while Maine lost 76 percent of its sheep during the same decades, 420,000 being reported in 1900; 206,000 in 1910; 119,000 in 1920; and 99,000 in 1930.[47]

A number of different factors were instrumental in causing this decline. Most important was the fact that the number of farmers concentrating on dairying was constantly increasing. The attitude of the average Vermonter of 1912 toward sheep raising is shown in the answers to a questionnaire sent out by a student at the State Agricultural College at the University of Vermont to representative farmers who still had flocks. In answer to the question, "What in your opinion is the outlook for the sheep industry in Vermont?" the prospect was scarcely ever reported as "good," although frequently it was "fair." Of special interest is the reply of a farmer in Randolph, who wrote, "Fair, but I am quite interested in the outlook of shiping (*sic*) milk to Boston and think it will hurt the sheep business here."[48]

In 1918 a representative of the *Country Gentleman* toured Vermont and New Hampshire to survey conditions. He recounts that when he asked one of the shrewdest farmers in the Green Mountain State, "What do you think of sheep?" he was told, "I don't believe New England can afford to bother with them.

[47] Reports of the Fourteenth Census, Vol. V: *Agriculture*, pp. 573 *et seq.*; Reports of the Fifteenth Census, *Agriculture:* bulletin for Vermont, second series of bulletins, p. 11; *ibid.*, for New Hampshire, p. 11; *ibid.*, for Maine, p. 11. The census returns for 1900, 1910, and 1920 do not include spring lambs. The returns for 1930 include sheep and lambs. The figures for 1900 relate to the situation on June 1 of that year; for 1910, to April 1; for 1920, to January 1; and for 1930, to April 1.

[48] Questionnaire of Mr. C. A. Webster, given in Atwood, Sheep Husbandry in Vermont. The questionnaires are bound into this manuscript as an appendix

Sheep are a frontier crop. The frontier in that sense is gone. . . . If you tell me that sheep will pay a profit on these hills of mine, I won't deny it. That isn't the point. I can make more money from something else—dairying."[49]

Another hindrance to the revival of the industry was lack of experience, for very few farmers of the present generation know much about the keeping of sheep, and these animals probably require the most definitely practical personal knowledge and the most serious attention, especially in the lambing season,[50] of any kind of livestock.[51] Talks the writer had with farmers in the hill town of Reading, Vermont, in the summer of 1929, emphasized this point. One old farmer stated bluntly, "We can' g'back t'sheep; farmers now'days dunno haow t'take care ov'em."

In addition, the margin of profit in the work was so slight[52] that the hill farmer would have to expand his pasturage and increase his small herd before he could depend upon selling

[49] Tilden, "Going or Coming," p. 5. In Cornelia James Cannon's story of present-day New England hill-country life, the mill owner makes a similar observation concerning sheep: " 'Perhaps we shall have them back some time. Sheep belong to the frontier. They flourish in undeveloped country and get crowded out by civilization. When New Hampshire reverts to its original wild state, I'm willing to prophesy our hills will be covered with flocks again.' "—Cannon, *Heirs*, p. 74.

[50] See, *e.g.*, the grimly realistic description in Virginia Black's article, "Spring Lamb."

[51] Waugh, "New Farming for Old New England," p. 18. "Wool growing may be successful in the midst of primitive practices in culture, mutton production involves a most enlightened knowledge of animal psychology."—*Special Report on the History and Present Condition of the Sheep Industry of the United States*, p. 340.

[52] The following anecdote of Calvin Coolidge (Rinehart, "Thoughts," p. 25) amusingly emphasizes the small returns the average farmer might expect from sheep raising:

"One day Calvin Coolidge was going down the Potomac on the 'Mayflower,' and was surveying some abandoned plantations along the banks.

" 'Why don't they try sheep?' he said.

" 'There is very little money in sheep, Mr. President, under these conditions.'

"He stared out thoughtfully.

" 'My father raised sheep once,' he drawled. 'He made seventy-five dollars, one year, out of them.' "

enough wool to yield sufficient returns. There were farms, however, whose income might be raised to the subsistence point if the owners added a flock of sheep to their other livestock.[53] But if they had an interest in bringing back a flock of sheep to their farms, there lay constantly before them the dog menace, a threat which deterred many a hill farmer from utilizing waste pasturage for sheep cropping.[54]

The picking of ferns during the fall offered another means by which the village as well as the farm families were able to earn a little extra money. The so-called "Christmas fern" and the "evergreen wood fern,"[55] which grow in great abundance in many hilly sections of northwestern New England, were picked in the fall, carefully packed, and shipped to the city, where they were put in cold storage to be used during the winter by florists, or by butchers, who garnished their offerings under the glass counter with them. The gathering of ferns, which began in late August and continued until the snow flew, gave seasonal employment to two groups of people. Sometimes the farmer and the women and children of his family picked them on their own property, but more often it was the residents of near-by villages who collected them. The village people were allowed to

[53] A few farmers in the hill country were still interested in sheep raising. In Vermont, for instance, the leading sheep and wool growers met in 1926 at the offices of the state Department of Agriculture and organized the Vermont Sheep Breeders' Association, which held its first meeting the following August in conjunction with the New England Sheep and Wool Growers' Association.—Vermont Department of Agriculture report for 1924-26, p. 40. Interest in sheep was also kept alive by constantly recurring suggestions in the local newspapers as to the desirability of developing flocks on the farm. See, for example, the *Burlington Daily News*, Dec. 31, 1929.

[54] See above, pp. 189-90. The Maine Commissioner of Agriculture declared in 1916, however, that too much emphasis had been placed on the destruction caused by dogs (Maine Department of Agriculture report for 1916, p. 18), and a New Hampshire writer stated in 1926 that an internal parasite, "stomach worms," was a worse enemy to the sheep business than dogs.—Sydney Williams, "Profit in Sheep," p. 282.

[55] *Aspidium acrostichoides* (Dryopteris), and *Aspidium marginale*, respectively.—Mary Stickney Branlière, Bethel, Vt.

work on any unfenced property, but to pick on fenced property it was necessary to have the owner's permission. This was usually granted readily, unless he wanted the ferns himself.[56]

The shipping of large quantities of ferns to the city market began in the second decade of the century,[57] and increased slowly during the next. By the late twenties, large quantities were being sent out of the upper reaches of the valleys in central Vermont, and from other sections of the hill country. The price paid for them fluctuated. In 1930, the average amount was between forty and fifty cents a thousand, depending upon the quality of the product. The ferns were packed in bundles of twenty-five, and by fast work and with long hours, a picker might gather four hundred bunches a day, bringing in about four dollars as a result of his labor.[58] This seasonal side-line benefited only a small percentage of the inhabitants of northern New England, however, for neither the demand nor the supply was large enough to give employment to any considerable number.

The production of seed potatoes was still another specialty recommended. The potato is a plant which attains its highest perfection in a cool, moist climate, and potatoes grown in a mild climate tend to deteriorate from year to year. Consequently, the farmers in the southern and middle Atlantic states often went north for their seed potatoes. The departments of

[56] Interview with a fern picker, Mrs. Robert French, in Bethel, Vermont, Dec. 28, 1931.

[57] In 1913, one observer, following the old route of the Stratton Turnpike Company, in hilly Windham County, southeastern Vermont, wrote, "After leaving the outskirts of West Wardsboro, not a sign of human life was seen for the next twelve miles. . . . By noon, we . . . had reached 'Kelley Stand,' one of the oldtime taverns. . . . Here the woods for miles around were alive with a busy throng who sought far and wide for the ferns which grew so abundantly, picking them in great armfuls and carrying them to the roadside to be packed and shipped to the cities for the florists to use in decorating their boxes of flowers."—Wood, *The Turnpikes of New England*, pp. 274-75.

[58] Interview with a fern picker, Mrs. Robert French, Bethel, Vt., Dec. 28, 1931.

agriculture in the northern New England states endeavored to promote the growing of quality potatoes. The Vermont department, for example, offered to send state inspectors around at regular intervals, and to certify potatoes which were raised according to its specifications and came up to its standards.[59] Although the total production during these decades varied and noticeably decreased in both Vermont and New Hampshire,[60] and although prices suffered a wide fluctuation,[61] the farmers who took the trouble to produce a crop which could be certified by the public authorities usually found a market at a fair price for all the seed potatoes they raised.

Other suggestions, such as truck gardening, especially for farms in the immediate vicinity of cities or summer resorts, and the raising of corn for commercial canning, proved to be of considerable value. The New Hampshire College Extension Service noted in 1916 that many cities in the state, such as Manchester, were depending upon Boston and other outside places for shipments of fresh vegetables, and pointed out that

[59] E. S. Brigham, "The Possibilities for Vermont of a Seed Potato Trade," p. 44.

[60] In Maine, where the development of the level and fertile acres of Aroostook County caused a sudden jump, the potato production increased 383 percent between 1899 and 1909. For the complete table of the production of white potatoes in Vermont, New Hampshire, and Maine from 1899 to 1929, see Appendix 3, Table IB.

[61] The farm price per bushel on December 1 fluctuated in New Hampshire as follows, according to the *New Hampshire Crop and Live Stock Review*, 1928, p. 7:

NEW HAMPSHIRE FARM PRICE OF POTATOES, PER BUSHEL, 1909-28

| Year | Price (in Dollars) | Year | Price (in Dollars) | Year | Price (in Dollars) |
|---|---|---|---|---|---|
| 1909 | 0.64 | 1916 | 1.66 | 1923 | 1.15 |
| 1910 | 0.52 | 1917 | 1.67 | 1924 | 0.84 |
| 1911 | 0.87 | 1918 | 1.45 | 1925 | 2.35 |
| 1912 | 0.61 | 1919 | 1.75 | 1926 | 1.70 |
| 1913 | 0.83 | 1920 | 1.55 | 1927 | 1.40 |
| 1914 | 0.60 | 1921 | 1.35 | 1928 | 0.80 |
| 1915 | 0.95 | 1922 | 1.05 | | |

the growing of green stuffs for near-by cities would be a profitable side line,[62] while a decade later the Maine Commissioner of Agriculture urged the farmers of that state to give greater attention to truck farming "to supply the increasing needs of our cities and our summer visitors."[63] Market gardening, however, furnished an extra source of revenue to only a small percentage of farmers, who lived in close proximity to the few cities that northern New England possessed, or near mountain, lake, or shore resorts, and but few back-hill farms in the more remote sections were able to take advantage of this new opportunity. Its widest development occurred in southern New Hampshire. Truck farmers in the town of Salem, for instance, sent produce to near-by Lawrence, Massachusetts,[64] while others in the town of Hudson found a convenient outlet in the adjacent city of Nashua, or in Lowell, Massachusetts, five miles to the south.[65]

The raising of sweet corn for canning attained its greatest development in Maine, although some was grown in New Hampshire and Vermont. The first corn-canning factory in Maine was established at South Paris in 1866,[66] and by 1900 the number had increased to seventy, which in the preceding year packed 22,000,000 cans. At the end of another decade the output had mounted to 28,000,000 cans,[67] and the raising of sweet corn continued to be an important source of income throughout this period. In 1929 15,000 acres were planted to it in Maine, and the yield for the year in that state was 46,000 tons.[68]

[62] Schreiber, *Vegetable Gardening in New Hampshire*, pp. 2-3.

[63] Maine Department of Agriculture report for 1928, p. 15.

[64] *History of Salem, New Hampshire*, pp. 295 *et seq.*

[65] Kimball Webster, *History of Hudson, New Hampshire*, pp. 131 *et. seq.* See also Rollins, "The Abandoned Farms of New Hampshire," p. 531.

[66] Maine Board of Agriculture report for 1881, p. 121.

[67] Maine Department of Agriculture report for 1910, p. 125.

[68] Commissioners of Agriculture of the Six New England States, *The Tercentenary of New England Agriculture, 1630-1930*, p. 12. See also New Hampshire Board of Agriculture report for 1888, p. 182.

The forests of the hill country, according to agricultural authorities, opened to the farmer two more avenues for adding to his income and utilizing his land to the best advantage. These have not yet been considered, but the next chapter sets forth the opportunities offered by each.

# XI

## THE FOREST PRODUCTS

*Yer want to buy my maples,*
*Standin' up thar on the hill?*
*No, sir, I ain't sellin'*
*An' what's more I never will—*

. . . .

*When you're slashin' of 'em, mister,*
*Do ye ever stop to think*
*Of the sap that flows in Springtime*
*That's so sweet-like when you drink?*
*An' the syrup thick an' sweet, sir,*
*An' maple sugar, too?*
*If you did, I'm sure you'd find out*
*Cuttin' weren't the thing to do.*[1]

THE production of maple sugar and maple syrup was an enterprise which was especially urged upon farmers in Vermont. The farmer enjoyed the sugaring season and, if he had a sufficient number of matured hard maples, needed little urging to tap them. The above verse is but one of the many illustrations of the regard in which the owners held the trees which produced such delicately flavored nectar in the spring and painted the countryside with such vivid hues after the first touch of frost in the fall.

### The Maple Crop

The maple-sugar season is one of the happiest periods of the year in northern New England. We recall with fond memories spring vacations in high-school days spent "sugarin'" on a

[1] Verse by Mrs. Hazel Abbott, of Cabot, Vermont, in Vermont Department of Agriculture report for 1920-22 (Report of the Vermont Maple Sugar Makers' Association, p. 30).

farm near the headwaters of Camp Brook in Bethel, Vermont.[2] There is an exhilaration in the work about a maple camp—in tapping the trees; in wading through dwindling snowdrifts to gather the sap; in filling the gathering-tub to the brim; in guiding the horse on his rough voyage as he drags the tub down to the sugar camp; in filling one's nostrils full of the sweet steam rising from the boiling sap; and, finally, in drawing off the rich, golden liquid when the syrup is done. "Sugarin' " is, moreover, an occasion of considerable social interest. Almost every camp has its sugar parties. Young and old gather there for picnics, boiling their eggs in the sap, and baking their potatoes in the ashes under the evaporator. The pièce de résistance is "sugar on snow"[3] with sour pickles and plain doughnuts.[4]

The sugar season gave the farmer an opportunity to make good use of his time at a period of the year when there was little else he could do to add to his income. Lasting from three to six weeks, it occurred after the winter's work in the wood lot and before it was time to begin spring plowing and sowing.[5] The money return from the maple product was opportune, for it came at the season when the pressure upon the average farmer for funds to meet grain bills and to purchase farm seeds was most imperative.[6]

The demand for maple sugar did not increase with the growth of population in the United States. On the contrary, it was reported in 1922 that the total output of maple products for that year was less than that of 1860, although the population

[2] A similar recollection inspired the editor of the *Boston Transcript* to write in the spring of 1929 a choice editorial called "Sap's Runnin'."—*Boston Transcript*, April 23, 1929.

[3] Syrup boiled down until it will harden into a sticky substance when spread on snow.

[4] Unsweetened crullers.

[5] Testimony of Victor I. Spear, Manager of the Vermont Maple Sugar Makers' Association, in U. S. Industrial Commission, *Report*, Vol. X, Part 2, p. 406.

[6] Address of George H. Soule, President of the Association, in Vermont Department of Agriculture report for 1910 (Report of the Vermont Maple Sugar Makers' Association, pp. 2-3.)

of the country had more than tripled and the per capita consumption of white sugar had increased between three and four times.[7] Since maple sugar was a luxury product, the market for it was never very large, and the increasing sales of the standardized blends of maple and white sugars cut seriously into the demand for pure maple goods. Many people, especially outside of the maple-producing regions, preferred the flavor of the blended syrups. Much of the maple sugar and syrup produced in northern New England was of inferior and uncertain grade, since unfavorable climatic conditions or careless sugaring methods caused great variation in quality, while the blends, produced by mixing a small amount of strong dark maple sugar or syrup with glucose or a cheap grade of cane sugar, were well-advertised and reliable.[8] In addition, the pure maple product was for many years sent to market in an unattractive manner,[9] although, in the last half of this period, more attention was put on packing it more temptingly.

Efforts to foster the demand for pure maple goods were made as early as 1893, when the Vermont Maple Sugar Makers' Association was organized for the purpose of improving, increasing, and marketing the Green Mountain production, and for protesting against the "mixers" who falsely labeled their blended products as "Pure Vermont" wares.[10] By the turn of the century, the Association commanded a large and active membership, by means of which it influenced the congressmen from the state to help secure the passage in 1906 of the Pure

[7] Vermont Department of Agriculture report for 1922-24 (Report of the Vermont Maple Sugar Makers' Association, p. 41).

[8] F. L. Allen, "What the Consumer Demands in Maple Goods," p. 39.

[9] Frank Putnam, "What's the Matter with Vermont?" p. 3.

[10] Address of George H. Soule, in Vermont Department of Agriculture report for 1912 (Report of the Vermont Maple Sugar Makers' Association, p. 6). In 1900, the Manager of the Association testified in Washington, "The maple syrup that is found in nearly all the markets of this country is a combination of about twenty percent of our poorest grade of maple sugar with glucose and some of the better grades of cane sugar. . . . This not only lowers the price of maple products but it discredits the product with the customer."—Testimony of Victor I. Spear in U. S. Industrial Commission *Report*, Vol. X, part 2, p. 408.

Food and Drug Act.[11] Although this law protected the sugar marker from falsely labeled commodities,[12] no appreciable increase in the demand for the unadulterated maple goods reresulted.[13] Therefore, it was doubtless fortunate, as the president of the Vermont Maple Sugar Makers' Association reluctantly admitted in 1912,[14] that a market could be found for the inferior grades of sugar and syrup. As it was, much of this type found its way into the melting pot of the mixer, while a large amount was used in the chewing tobacco trade. Indeed, by 1910, between two and four million pounds of the dark, strong grade of maple sugar and syrup were bought annually for the sweetening of chewing tobacco, for which it was the best preservative known.[15]

Notwithstanding the decrease in the number of farms during this period, the maple production for all three northern New England states was larger in 1930 than in 1900. The greatest increase occurred during the first decade of the century. If the maple syrup yield is reduced into terms of pounds of sugar,[16] Vermont's total output mounted in round numbers from 4,700,000 pounds in 1900 to 11,000,000 in 1910, 11,300,000 in 1920, and 12,100,000 in 1930; while New Hampshire's rose from 770,000 in 1900 to 1,450,000 in 1910, dropping to 1,230,000 in 1920 and to 898,000 in 1930; and Maine's jumped from 130,000 in 1900 to 360,000 in 1910, declining to 350,000 in 1920 and 340,000 in 1930.[17]

[11] Vermont Department of Agriculture report for 1912 (Report of the Vermont Maple Sugar Makers' Association, p. 6).

[12] Vermont Department of Agriculture report for 1924-26, p. 35 of the Association's Report, cites examples of prosecution of those who falsified their labels concerning maple syrup.

[13] Jones, "Report of the Commissioner of Agriculture," p. 38.

[14] Address of George H. Soule in Vermont Department of Agriculture report for 1912 (Report of the Vermont Maple Sugar Makers' Association, pp. 6-8).

[15] *Ibid.*, p. 6.

[16] One gallon of syrup makes eight pounds of sugar.—Letter to writer from E. H. Jones, Vermont Commissioner of Agriculture, May 27, 1932.

[17] For production figures of maple sugar and syrup in northern New England states, 1850-1930, and an interpretation of them, see Appendix 3, Table I.

The number of farmers in northern New England producing maple goods were, however, far from a majority. In 1909, 34 percent of Vermont farmers and 13 percent of those in New Hampshire reported the tapping of their maple trees, while in Maine the percentage was smaller still.[18] These proportions were little changed by 1919, when the return was 36 percent in Vermont, 15 percent in New Hampshire, and in Maine, less than 5 percent.[19]

If a fair price for labor and a return on the capital invested were included in the cost of production, the greater number of sugar orchards in northern New England were operated at a loss. The return of profits depended upon four factors: the size of the orchard, the yield per bucket, the method of sale, and the quality of the product.[20] Of these, the number of trees tapped was by far the most important. Careful investigation in Vermont has indicated that orchards hanging less than 450 buckets showed a loss of as much as forty cents a gallon when all pro-

[18] The general situation in the maple-sugar industry in 1909 is given in the following table:

1909 SITUATION OF MAPLE SUGAR INDUSTRY

| | Farms Reporting | Trees Tapped |
|---|---|---|
| Maine | 2,274 | 252,764 |
| N.H. | 3,518 | 792,147 |
| Vt. | 10,066 | 5,585,632 |
| Mass. | 1,525 | 256,501 |
| N.Y. | 25,525 | 4,948,784 |
| Ohio | 12,103 | 3,170,828 |

The only other states in the country to tap more than 100,000 trees in that year were Pennsylvania, Indiana, Michigan, and Wisconsin. The production of maple sugar and syrup that year was valued at $52,137 in Maine; $182,341 in New Hampshire; $1,086,933 in Vermont; $77,559 in Massachusetts; $1,240,684 in New York; and $1,099,248 in Ohio.—*How Vermont Maple Sugar Is Made*, pp. 18-19.

[19] John A. Hitchcock, *Economics of the Farm Manufacture of Maple Syrup and Maple Sugar*, pp. 23-24. The average number of trees per orchard in 1919 was 576 in Vermont; 206 in New Hampshire; 108 in Maine; 262 in Ohio; and 195 in New York.—*Ibid.*

[20] *Ibid.*, p. 20. On the same page there is a discussion of the results of an intensive study of 457 Vermont orchards in 1025.

duction costs, including the farmer's own labor, were counted in, and those hanging from 650 to 1,000, a loss of from sixteen to twenty cents a gallon. Only the farms hanging from 1,250 to 1,650 buckets reported a fair profit over all expenses.[21]

Nothwithstanding that a clear profit was seldom realized; that it was difficult to find a good market for maple products;[22] that the problem of securing extra help during the sugar season was always a serious one; that the production of this crop required a considerable investment in such equipment as sap buckets, gathering tubs,[23] storage tanks, and most expensive of all, the evaporator; that this equipment was used for only a short period each year and then lay idle until the next sugaring season; and finally, that it was always a gamble to undertake the manufacture of maple goods because of the uncertainty of climatic conditions,[24] the industry at least brought the husbandman a certain amount of cash annually. In the middle twenties, the maple-sugar business was paying from $1,500,000 to $2,000,000 each season to Vermont farmers,[25] and in 1930 the total value of the maple products in the state amounted to

[21] *Ibid.*, pp. 10-11. Two, and sometimes three buckets were often hung on one maple, if the tree was a large one.

[22] See, *e.g.*, the news letter of the County Agent of Orange County, Vt., giving an account of an attempt to start a coöperative to handle the maple product of the state, quoted in the *Bethel Courier*, March 26, 1931, p. 1. A study of the market distribution on 457 Vermont farms in 1925 showed that 51 percent of their total product went to dealers, 9 percent to coöperatives, 2 percent to commission houses, 3 percent to local stores, and 35 percent to consumers directly.—Hitchcock, *Economics of the Farm Manufacture of Maple Syrup and Maple Sugar*, p. 21.

[23] Within recent years, a few of the more progressive farmers who possess sugar trees suitably located for a gravity system have installed a pipe system connecting all their maple trees with a storage tank in the sugar house, which is so located that the sap will run through these pipes down the hill to the tank. This saves labor in gathering sap.—*Ibid.*, p. 10.

[24] Vermont Department of Agriculture report for 1920-22 (Report of the Vermont Maple Sugar Makers' Association, p. 24).

[25] Address of C. F. Morgan of Jericho, Vt., President of the Vermont Maple Sugar Makers' Association, in Vermont Department of Agriculture report for 1922-24 (Report of the Vermont Maple Sugar Makers' Association, p. 5).

$3,143,000,[26] a gain of $2,057,000 over the value reported in 1909.[27]

Even though the proceeds from sugar making on the average farm were meager, the owner would probably have been worse off if he had not tapped his trees, for many of the costs incident to manufacture, such as interest charges on orchard and equipment, taxes, repairs, and depreciation of sugar house and tools, occurred whether or not the orchard was made to produce.[28] The farmer always found the money gained from his maple crop most helpful, and many hill farms, not so well adapted to other lines of agriculture as those more favorably located, needed the added source of income which this production supplied. Indeed, the assertion was made in the middle twenties that the maple-sugar industry was so closely allied with other lines of husbandry on many Vermont farms that it virtually meant the difference between success and failure.[29]

### Afforestation and Reforestation

> *And do not worry too much about the matter if a few rough farms do revert to their natural wilderness; there will always be a demand for wood, timber, and lumber, and a farmer can harvest trees as well as any other crop. Our wooded hills break the winds and clouds; they give us good air and water; they are beautiful to the eye.*[30]

As the development of intensive agriculture in northern New England brought about an increasing cultivation of only the best tracts, the farmers of the region were urged to reforest the overgrown fields which had once been improved land. On abandoned farms, and on the rougher and more isolated acres of the husbandman who was too indifferent to heed this advice,

[26] *New England Homestead*, Vol. CII, No. 26 (June 27, 1931), p. 3.
[27] *How Vermont Maple Sugar Is Made*, p. 18.
[28] *Ibid.*, p. 23.
[29] Address of C. F. Morgan in Vermont Department of Agriculture report for 1922-24 (Report of the Vermont Maple Sugar Makers' Association, p. 5).
[30] Chapin. "Vermont Farms and Farmers," p. 289.

nature provided for the natural reversion of the neglected meadows or pastures to forest land, or, to phrase it more technically, for afforestation.

On page 239 is given a graph, based on material which appeared in the *Journal of Forestry* in 1918,[31] of the estimated percentage of forest area in each New England state from 1620 to 1910. It will be noticed that for northern New England, the lowest proportion of woodland and consequently the greatest percentage of cleared land used either for pasture or tillage, was reached sometime during the decade 1870-80. New Hampshire attained this stage in the early seventies; since that time, the wooded areas in that state have steadily increased. Maine reached her low point in the late seventies, and Vermont hers around 1880, although a slight fluctuation occurred during the next two decades. As the graph plainly shows, a greater proportion of land was cleared of forest in Vermont than in either New Hampshire or Maine.

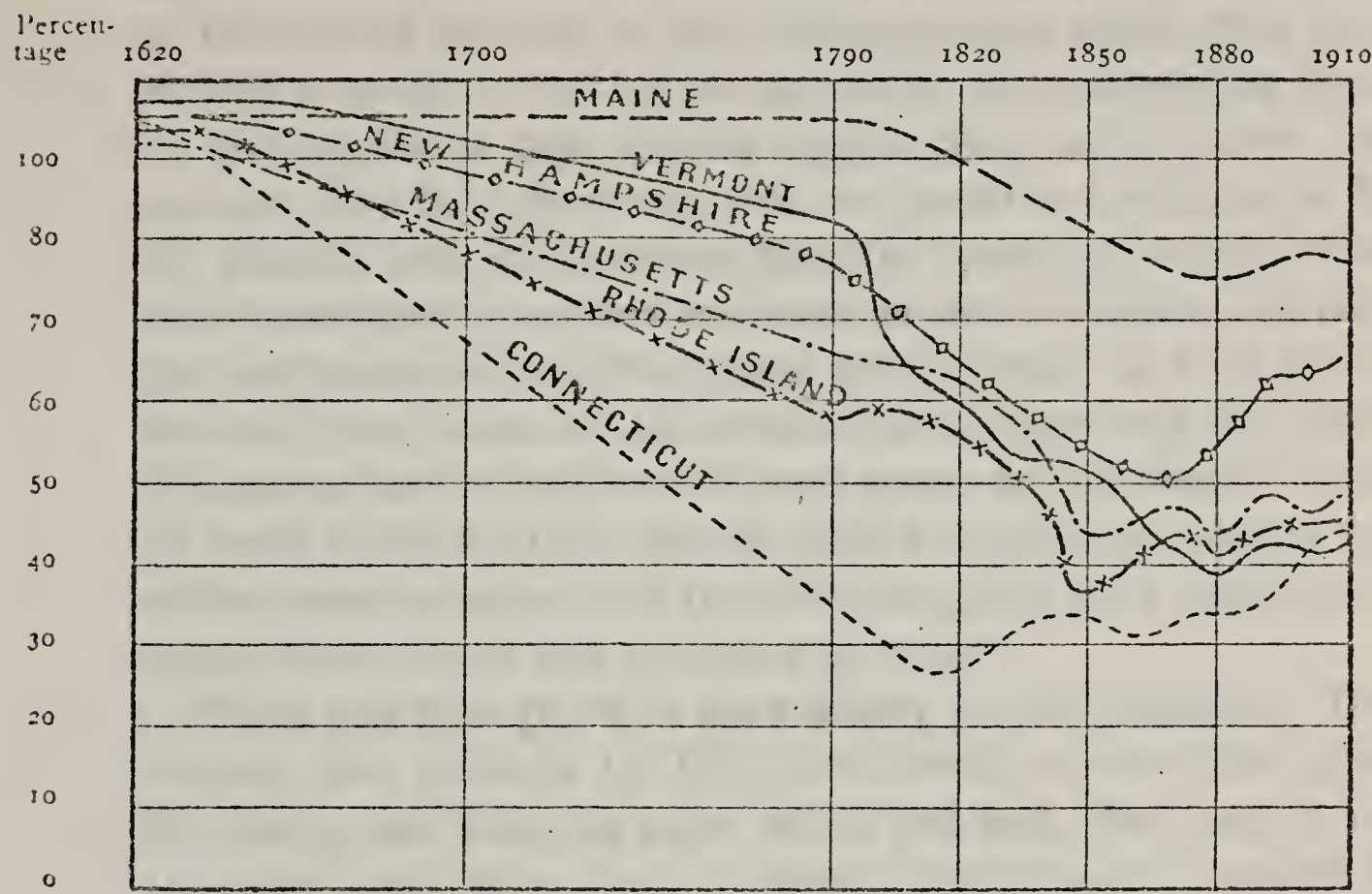
Up to the second decade of the twentieth century, the increase in forest area in the hill country was almost wholly the result of afforestation and not reforestation.[32] Favorable conditions for tree growth made the process comparatively rapid. The soil was well broken, so that the seed reached it easily and the roots of the seedlings penetrated it without difficulty. Moreover, on abandoned pasture and tillage land the young trees did not have to compete with older ones for light, moisture, and growing space.[33] One of the most profitable of the different

[31] Harper, "Changes in Forest Area of New England in Three Centuries," p. 447.

[32] Advice to allow his poorer land to revert to forest was offered to the New England farmer as early as the sixties. With ornate language, the *New England Farmer* pointed out in 1867, "Most of our rocky hills are admirably adapted to the growth of trees. The rocks themselves furnish nutriment, probably potash and other salts. Roots know where to find these and will cluster around them, sometimes covering them with a complete network and acting as so many little pumps sending supplies to branches that are waving scores of feet above them in the upper air."—*New England Farmer,* I (January, 1867), 23.

[33] Buttrick, "Forest Growth on Abandoned Agricultural Land," p. 81.

kinds of trees which sprang up naturally was the spruce.[34] After four or five years' growth, the young spruces could be cut for Christmas trees for sale in the city. Trees three or four decades old were large enough for pulpwood, and those which had grown for a few more years made good lumber.




ESTIMATED FOREST AREA IN EACH NEW ENGLAND STATE, 1620-1910

Data from Harper, "Changes in Forest Area in New England," p. 447. The methods by which the author arrived at these estimates are carefully described on pp. 445-48 of the article.

The abundance of spruce in afforested areas gave rise to the development of the Christmas-tree industry. The export of these trees from the hill country began to reach noticeable proportions in the first decade of the twentieth century, when dealers in the Eastern cities found near-by supplies insuffi-

[34] In some cases this was mixed with a considerable percentage of balsam. In southeastern New Hampshire and southern Vermont, much of the original forest was composed of white pine mixed with hardwoods. Many abandoned fields and pastures in these sections seeded up rapidly to comparatively even-aged stands of white pine, which at forty years of age yielded in frequent cases as high as 20,000 board feet of lumber to an acre.—*Ibid.*, p. 87.

cient.[35] The business flourished from the start, although the cutting of small spruces before they had matured was regarded with general disfavor by leading citizens of the region, especially when the dealer bought all the spruce on a farm and cut at will. In 1912, the Governor of Vermont pointed out the harmful effects of this, citing the case of the Christmas-tree dealer who persuaded a farmer to sell all the spruce in two pastures for $200 on the argument that cutting would clear and improve the pasture. The land, however, was too rough and wild to be fit for pasture and, furthermore, the trees were cut so high that their lower limbs covered as much ground as before, leaving the land uncleared and the spruce crop ruined.[36] In later years, however, the farmer cut his own Christmas trees and sold them in bunches to city dealers who sent agents to buy them.[37] Thus he could select the trees that he wished to take out, and let the others grow to timber. For the most part, they were taken from pasture land which was reverting to forest.

There was little profit in the industry for the producers. The amount they received for their trees hardly covered the labor of cutting and bringing them to the railroad. The dealers, on the other hand, often made a considerable amount of money if the demand in the city was brisk. Occasionally, however, the market was glutted, and trees were sold for anything they would bring. In 1928, the farmer was paid an average price of twenty-five cents or less per bunch, which generally amounted

[35] Herr, "The Christmas Tree Industry," p. 3. The Christmas tree custom was brought to America by German immigrants and found a ready welcome in New York with its strong Dutch traditions. The first trees sold in the United States were shipped from the Catskills to New York City in 1851. Hitherto, the public had cut their own.—*Ibid.*

[36] Twenty thousand trees were shipped from the two lots. A lumberman who saw them loaded estimated that in twenty years each tree would contain 90 feet of lumber, a total of 1,800,000 feet.—Allen M. Fletcher, "Vermont's Wealth in Her Forests," p. 19.

[37] The trees were arranged according to size, wrapped with twine to save space and to prevent the branches from breaking, and tied into bundles of from two to eight. These were hauled to the dealer's agent, who had them loaded on to flat cars and sent to the city.—Herr, "The Christmas Tree Industry," p. 4

to but six cents a tree, or a stumpage valuation of only three or four cents,[38] while a tree on the city market brought anywhere from twenty-five cents to fifty dollars, depending upon its size and symmetry.[39]

Nevertheless, by the end of the period the industry had grown to considerable proportions. In 1928, New Hampshire exported 800,000 Christmas trees. Four hundred carloads were shipped to New York, Boston, and Philadelphia, while a few went as far west as Chicago and Kansas City.[40] In 1931, approximately six hundred carloads went out of Vermont by train, while many trees were carried out by truck.[41] For the 800,000 trees sent from New Hampshire, it was reported that the farmers received $65,000,[42] and the six hundred carloads exported from Vermont were estimated to have yielded $60,000 to the landowners, $120,000 to the railroads, and $240,000 to the middlemen and laborers in Vermont.[43] In spite of the meager

[38] In 1931, the price paid Vermont farmers was slightly less than that of previous years, being from 15 cents to 25 cents per bundle of one to six trees, delivered at the loading point. The sum realized for each standing tree was from 2 to 5 cents.—*Bethel Courier,* Feb. 11, 1931, p. 1.

[39] Herr, "The Christmas Tree Industry," p. 4. In 1928, small trees from 5 to 6 feet tall were selling in the city from $0.75 to $2.00 each.—*Ibid.*

The difference in the price paid the farmer and the amount received by the final dealer is shown in the following illustration. In 1931, a special thirty-five-foot spruce was purchased for a city's community Christmas tree. A representative of the wholesale dealer picked the tree out himself, and had some local men cut it and carry it to the railroad. The farmer received only $2.00 for it. In order to find out what the tree sold for in the city, the men who cut it slipped a note in its branches requesting the retail buyer to write them the purchase price. This tree was shipped from Chester, Vt., and the entire expense of buying, cutting, trucking, and loading it on the car was about $20.00. In due time the answer to the note came back to Chester and the final sum paid for the tree, after it had passed through the hands of two wholesale dealers, was reported as $200.00.—*Bethel Courier,* Nov. 26, 1931, p. 3.

[40] Herr, "The Christmas Tree Industry," p. 5.

[41] *Bethel Courier,* Feb. 11, 1932, p. 1.

The railroad stations in Vermont shipping over 20 carloads of inspected trees were Island Pond, 36; East Wallingford, 33; Ludlow, 31; Johnson, 28; Chester, 25; Northfield, 21; and Mt. Holly, 20. A larger number of trees were shipped from the state by truck in 1931 than in previous years. One truckload traveled as far as Atlanta, Ga.—*Ibid.*

[42] Herr, "The Christmas Tree Industry," p. 5.

[43] *Bethel Courier,* Feb. 11, 1932, p. 1.

return, the cash realized from the sale of young spruces for Christmas trees was very welcome to many a hill-country farmer, and, in a certain sense, he was being paid for keeping his pasture land clear.

Another beneficial result of afforestation was the gradual extension of the wood lots on the farm. They not only supplied firewood for the house and timber for repairing the buildings, but also furnished cordwood and logs for sale outside, thereby giving winter employment to the farmer's team and bringing in a little money annually.[44] Work in the wood lot, moreover, fitted well into the labor program of the New England farmer's year. Like the brief season for making maple sugar, it did not conflict with raising crops or caring for stock, for the best time for the farmer to cut and haul his logs was in midwinter, when the cover of snow facilitated the moving of sleds. By furnishing work to men and teams not otherwise employed, the timber crop permitted a better balanced farm unit, thereby indirectly lowering the general cost of production. Furthermore, a good wood lot formed a liquid asset. Farms with merchantable timber sold much more readily than those from which the timber had been stripped. In many districts, a farm in the latter category proved unsalable.[45]

The hill-country husbandman has generally been able to find some market for the products of his wood lot. By the middle twenties, some of the land which had been allowed to revert to forest since 1865 was yielding an annual net return of from three to five dollars an acre.[46] In addition to the steady demand for cordwood, many farmers sold logs to the little wood-working establishments in their vicinity, while others filled orders for southern New England manufacturers of wooden products who

[44] Allen M. Fletcher, "Vermont's Wealth in Her Forests," p. 19.

[45] E. H. Thompson, "The Importance of the Woodlot in Financing the Farmer," p. 11.

[46] Crawford, "The New England Farm Coming Back," p. 170. The increase for the value of forest products for northern New England during this period is given in Appendix 3, Table II B.

came north to buy their raw materials.[47] In the latter twenties, however, the number of wood-working industries declined. In 1925, New Hampshire had 301 establishments employing 6,219 wage earners; two years later, there were 267 with a force of 5,444. Vermont, which in 1925 had 224 wood-working factories furnishing work for 4,609 people, in 1927 had only 206 establishments employing 4,137 wage earners, while Maine possessed 374 factories in 1925 and 307 in 1927, her employees in this type of work dropping from 8,975 to 7,104.[48]

Reforestation holds much the same relationship to afforestation as intensive farming bears to earlier forms of cultivation. The financial yield from ten acres of reforested land may be as great as that from one hundred acres of the same quality of land less intensively managed.[49] Much of the improved acreage in the hill country was reverting to forest naturally, but often the type of tree developing on unoccupied tracts was not as valuable as some other kind which might have grown if it had been planted. Furthermore, afforestation on occasional stretches was a slow process. Under these circumstances, reforestation was advocated as the best method of utilizing cleared land no longer worth cultivating.

In the days when he was one of the few advocates of scientific forestry, Gifford Pinchot declared at a convention of the Vermont Dairymen's Association that he believed there to be

[47] J. Russell Smith, *North America*, p. 151. Mr. Smith describes a tennis racquet factory at Seekonk, Mass., which was putting out, at the height of the season, 1,400 racquets a day, the frames of which were made largely of ash from northern New England. He also mentions a factory at Orleans, Vt., which was manufacturing most of the piano sounding boards used in the country.

[48] Artman, *The Industrial Structure of New England*, p. 485. Some wood-turning companies controlled their own timber, and thus did not furnish a market for the products of the farmers' woodlots. An establishment of this type, situated at Forestdale, in central Vermont, employed about 200 workers in 1926. This seventy-five-year-old institution was not forced to move out when the nearby woodland was cut over, for its own carefully managed 8,000 acres of forest land had insured a continuous supply of raw material.—Vermont Department of Agriculture report for 1924-26 (Report of the Vermont Maple Sugar Makers' Association, p. 27). A declining market, however, forced it to close in 1935.

[49] Toumey, "The Woodlot: A Problem for New England Farmers," p. 196.

every indication that the state was destined permanently to give over to the growth of timber a very considerable portion of her area.[50] In the same year, 1904, the first official action in Vermont toward reforestation was taken when the legislature authorized the governor to designate one of the members of the Board of Agriculture to act as Forestry Commissioner, directed the First Selectman of each town to take measures to control and extinguish forest fires, and exempted from taxation for ten years any uncultivated lands planted with trees under prescribed conditions.[51] Two years later, the legislature appropriated $500 annually for five years for the purpose of aiding in the establishment and maintenance of a nursery for the propagation of forest seedlings of useful varieties.[52] The sum was later increased. People who wanted to procure seedlings to reforest their land could now purchase them at cost. In 1909, 195,000 trees were bought by persons within the state, and in the following year, 376,000 were sold.[53] In 1909 also, the office of State Forester was instituted, and he was given supervision of the State Nursery and such campaigns as the extermination of the brown-tail moth.[54] In 1917, the legislature imposed the duties of Forester upon the Commissioner of Agriculture, but in 1923 it organized a special Forestry Service headed by a Commissioner of Forestry.[55]

In 1909-10, Vermont embarked on a reforestation program for public land, planting 69,000 trees in the latter year. By 1913 she had acquired, largely by gift, many tracts in different parts of the state. These were designated as State Forests and

[50] Vermont Board of Agriculture report for 1904 (Report of the Vermont Dairymen's Association, p. 54). See also the plea for carefully managed timber orchards in mountainous sections of Vermont, in George F. Wells, "The Status of Rural Vermont, 1903," p. 91.

[51] F. D. Proctor, "Deferred Forestry," p. 417.

[52] *Ibid.*

[53] Vermont Department of Agriculture report for 1910 (Report of the State Forester, p. 217).

[54] *Ibid.*

[55] *The Vermont of Today*, I, 329 *et seq.*

reforestation work was inaugurated on them. By 1928, there had been planted on state land 2,511,275 trees, the majority of them white, red, or Scotch pine, and it was estimated that 14,440,765 trees had been set out by individuals.[56]

The other northern New England states had also entered upon a definite program of state aid to reforestation. Amongst her earlier legislation, for instance, Maine in 1903 passed a law establishing a system of paid district fire wardens, and in 1906 she erected six fire stations on her highest mountains. In the same year, New Hampshire initiated a fire warden service, and by 1911, two nurseries had been established in that state, one at North Boscawen, specializing in white, Scotch, and Norway pine, and the other at Pembroke, used for white pine transplants.[57] Considerable money was appropriated by New Hampshire to further reforestation.

The appropriations of New Hampshire and Vermont, however, were not sufficient to produce enough seedlings to meet the demand, a fact which tended to hinder reforestation work. In 1922, the Vermont State Forester reported that during the spring planting season, the supply had been oversubscribed and many orders had had to be refused,[58] while the Forester of the Society for the Protection of New Hampshire Forests lamented in 1927 that the State Nursery, which sold at cost an excellent quality of seedling, did not have nearly enough to take care of the demand.[59]

Taxation was another drawback to reforestation projects in the hill country. The New Hampshire Forester just mentioned considered that this was the severest handicap under which the program in the Granite State labored. In 1927 he decried the

[56] *Ibid.*, p. 329.

[57] P. W. Ayers, "Is New England's Wealth in Danger?" p. 303; New Hampshire Forestry Commission, *Forest Laws and Organization of the Forestry Department*, pp. 51 *et seq.*

[58] Vermont Department of Agriculture report for 1922-24 (Report of the State Forester, p. 106).

[59] Ayers, "The Outlook for Forestry in New Hampshire," p. 11.

"vicious system of taxing forests at their full value every year," and observed that this more than ate up the total value of the tree before it was mature. "Where tax laws are enforced," he stated, "it is foolish for any individual to undertake to raise mature timber in New Hampshire."[60]

Although Vermont had more favorable laws governing the appraisal of reforested areas,[61] the high tax rates in isolated towns which still supported some agricultural population retarded progress. The Committee on Forestry and Woodworking Industries of the Vermont Commission on Country Life made note of this situation in its investigation in 1929, pointing out that the taxation necessary to maintain any degree of population was a distinct burden to forest land whose crop might not be harvested for from fifty to eighty years. They recommended that the state designate certain large areas of land which were better suited for growing timber than anything else, permit whatever farming population existed there to depart and then strictly protect the areas as forest land should and could be protected if no population needed to be supported.[62]

The appearance of the white pine blister was another hindrance to the reforestation of abandoned lands. As a large proportion of the trees planted in northern New England were white pines, the stands in many localities were threatened with destruction. The blister is a parasitic fungus which has alternating stages upon two different hosts, the inner bark of white

[60] For a complete discussion of the taxation of reforested land, see New Hampshire Forestry Commission, *Forest Laws and Organization of the Forestry Department*, for law of 1903; New Hampshire Forestry Commission, *Biennial Report*, June 30, 1928, for 1923 and 1925 amendments to the 1903 Abatement Law; New Hampshire Forestry Commission, *Biennial Report*, June, 1930, p. 40, for description of the situation in 1930 and recommendations with reference to the need for a new classification law.

[61] See the *General Laws of Vermont, 1917*, p. 207, for tax abatement law of 1912; *Acts and Resolves Passed by the General Assembly of the State of Vermont*, p. 29, for Reforestation Law of 1923.

[62] Preliminary Report of the Committee on Forestry and Woodworking Industries in Vermont Commission on Country Life, *News Letter*, December, 1929.

pine trees and the leaves of currant and gooseberry bushes. It is apparently Asiatic in origin and was introduced into this country from Europe in 1906.[63] By 1927, almost one-tenth of the larger stands of white pine in New England were diseased, and in many smaller ones from one-half to all of the pines were dead or dying. Since in its second stage, however, the fungus can live only on currant and gooseberry bushes, the spread of the disease has been effectively checked by the destruction of all such bushes in the vicinity of reforested areas.[64]

Because of the widespread destruction of timber growth in earlier years and the absence of any concentrated efforts at reforestation before the twentieth century, southern New England, and even a large part of the hill country, have for several decades been forced to import a large part of their building material. By the twenties, much of this was coming from the Pacific coast by way of the Panama Canal. Even in the little towns in the White Mountain region, Oregon lumber was used for construction purposes.[65] The costs of transporting this to New England were enormous. The United States Department of Commerce reported in 1930 that the New England states were paying more than $10,000,000 a year in freight bills on lumber shipped in from other parts of the country, and nearly $1,000,000 on imported foreign lumber.[66]

It would therefore seem that with special safeguards against disease and saner laws for taxing forest land, the farmers of the

[63] The blister kills the inner bark of the pine tree and the growing cells beneath, but the infected currant and gooseberry bushes are apparently very little injured by the second stage.

[64] James W. Tucker, "The Story of the White Pine," p. 365. The work of eradicating the white pine blister in New Hampshire was carried on by the State Forestry Department with the financial coöperation of towns, cities, and individuals. No new infections developed in any blister rust area after the currant and gooseberry bushes were removed. In 1915, the rust existed in but one town; by 1927, it was observed in 214 of New Hampshire's 232 towns and cities. From 1918 to 1930, the Department removed 31,687,746 of the disease-carrying bushes in the state.—New Hampshire Forestry Commission, *Report*, June, 1930, p. 22.

[65] Ayers, "The Outlook for Forestry in New Hampshire," p. 11.

[66] Artman, *The Industrial Structure of New England*, p. 48.

hill country would find it more profitable to undertake a fairly intensive program of reforestation than to let uncultivated cleared land grow up to worthless bushes. "We have in New Hampshire," said a Granite State authority in 1927, "nearly 2,000,000 acres of idle forest land, producing nothing, hardly making inferior cordwood."[67] Undoubtedly, the greatest potential value of all abandoned cleared land in northern New England lies in its proper utilization through scientific forestry.

[67] Ayers, "The Outlook for Forestry in New Hampshire," p. 11.

# XII

## EDUCATING THE FARMER

*What are we going to do about it? The answer is, "More education to the farmer."*[1]

AS ONE farmer after another in the hill country found it increasingly difficult to make a living, the realization grew that the highest efficiency of the agricultural industry could be attained only through a carefully planned policy for every part of the work. The husbandman must learn not only the most efficient methods of farming, but also the advantages of concentrating on the best land and the necessity for readjusting his production to meet the new conditions. Under fire of competition from outside areas, the owner of a northern New England farm had to become proficient in every phase of its management before he could make even a fair living. State authorities fully understood the desirability of such instruction. In 1912 a successful farmer, who later became Commissioner of Agriculture for Vermont, described the situation succinctly when he declared,

> With better education, we might reasonably expect to see better organization of the business of farming, . . . and a counting in of the cost of production. . . . It is good policy for Vermont to make it easy for those who desire to gain access to this knowledge.[2]

It had long been the custom, however, for the average hill-country farmer to laugh up his sleeve whenever he ran across a more progressive but perhaps less experienced brother who strove to learn better methods by reading and assimilating ma-

[1] E. S. Brigham, "Short-Sighted Farming," p. 31.
[2] *Ibid.*

terial which appeared in farm journals, or in the bulletins, pamphlets, and reports sent out by the state boards of agriculture. This attitude, however, was gradually broken down by the continued publicity given to the value of scientific farming by country newspapers, civic leaders, and agricultural experts, and by the evident success of those farmers who practiced it. The following rhyme is but one example of the propaganda which assailed the husbandman's prejudices:

Book farming long has been a term
Expressive of derision,
Repeated failures but confirm
And strengthen this decision.

But if experimental lore
Will cause two blades to grow
Where only one has grown before,
It's worth awhile to know.

The idea has passed forever
That brainless, grinding toil
Is the all-controlling lever
For the tiller of the soil.[3]

In the latter decades of the nineteenth century, as we have observed earlier, the state Boards of Agriculture made sporadic efforts to teach the farmer more efficient methods of production, but little practical benefit resulted.[4] In the first decade of the twentieth century, these boards were superseded by a salaried Commissioner of Agriculture who was given supervision over a Department of Agriculture. Maine made the change in 1901, Vermont in 1908, and New Hampshire in 1913. As the departments widened the scope of their activities, the appropriations granted them by the legislatures were increased accordingly. The new bodies were given law-enforcing functions, and dealt with such matters as the control of contagious and infectious

[3] Luna S. Peck, "The Old and the New in Farming," p. 36.
[4] See above, pp. 177-84.

diseases, especially bovine tuberculosis, among farm animals; the suppression of such insects as the gypsy and the brown-tail moths; the licensing and bonding of dealers who purchased milk, cream, and butter; the registration of stallions; the collection of information concerning agricultural resources; and even the fixing of damages to crops and orchards as the result of deer or bird depredations.[5]

The commissioners endeavored to give the people of their state opportunities to learn about the new ideas in farming. One of their innovations, whose novelty attracted keen interest, was the sending out of "Better Farming Specials," a project which had originated in the West. The first Special in northern New England toured sections of Maine in 1903, through the coöperation of two railroads with the Maine College of Agriculture,[6] and in 1910 all of the state but Aroostook County was covered by "The Modern Farming Special," which traveled over the lines of the Maine Central, the Boston and Maine, the Somerset, and the Washington County Railroads. Two flat cars displayed farm machinery and spraying apparatus, while other cars were devoted to exhibits.[7] In the following year the Bangor and Aroostook Railroad coöperated with the state Department of Agriculture, the College of Agriculture, and the state Grange, in sending out a train which covered Aroostock County, visiting thirty different towns.[8]

Vermont dispatched her first Better Farming Special in 1910 over the Rutland Railroad, which serves the western portion of the state and the territory between Rutland and Bellows Falls. A baggage car housed two dairy cows, of which one had made a profit of $15 and the other of $45 per year, while one exhibition

[5] *The Food Supply of New England*, p. 119; New Hampshire Department of Agriculture report for 1926-28, p. 20.

[6] Commissioners of Agriculture of the Six New England States, *The Tercentenary of New England Agriculture*, p. 53.

[7] Boston and Maine Railroad, *New England Farms*, I (1910), 1-3.

[8] On this trip sixty-seven lectures and demonstrations were given to more than 8,000 people.—Maine Department of Agriculture report for 1911, p. 256.

car showed dairy utensils and feeds, another commercial fertilizers, and a third displays of horticulture and forestry. At every stop ten-minute talks were given in each car, after which a half hour was allowed for viewing the exhibitions and demonstrations. The total attendance was estimated to be over 5,600.[9]

So successful was the undertaking that in the next year the Commissioner of Agriculture persuaded the other main railroad of Vermont, the Central Vermont, to provide a train to tour the towns along its route, which runs diagonally across the state. This Special contained the same type of exhibits as the first, except that another car was added—a Domestic Science Car, equipped by the Home Economics Department of the State Agricultural College at the University of Vermont. The train made one-hour stops in twenty-four different towns and was visited by about 7,000 people.[10]

Educational farming specials were also run in New Hampshire, where the Boston and Maine, which serves most of the state, coöperated. A Special which was of particular interest to dairymen was the Better Livestock Train, which was run through New Hampshire in May, 1928, on a six-day tour, under the auspices of the state Department of Agriculture and other farm agencies. At each of the twenty-four stops, short speeches were made by dairy experts, while on board the train demonstrations were on view which emphasized comparisons between the value of the well-grown bull and the scrub bull. The audiences were most appreciative, some farmers even driving thirty miles to visit the train.[11] Although the influence exerted by the Better Farming Specials was of necessity only temporary, they did, nevertheless, stimulate new interests in many who visited them. One contemporary called them "agricultural colleges on

[9] Martin, "That Rutland Special," p. 11.

[10] Martin, "Annual Report of the Commissioner of Agriculture" (1911), p. 10.

[11] Hunt, "Better Cows for New Hampshire," p. 177; *New England Homestead*, XCVI (May 19, 1928), 3.

wheels," asserting that they did more good than could be accomplished by correspondence in ten years.[12]

It was not until coöperation with the Federal government in the development of the Farm Extension Service was begun that any sustained program of agricultural education was undertaken by northern New England. The agricultural colleges reached only the ambitious sons of the more progressive and well-to-do farmers—a large percentage of whom never returned to the farm—while the information spread by the Experiment Stations was digested by only a small proportion of those whom it was designed to aid; the Extension Service, however, came into permanent contact with a majority of the farm population in the hill country. It was learning brought out of the laboratories and libraries, the experiment fields and bulletins, and adapted to the individual farmer by a man who lived in his community and understood intimately the needs both of its soil and its people.[13]

The first Farm Extension Service was instituted in the South by the Federal Department of Agriculture for the purpose of combating the ravages of the cotton boll weevil. The first unit in the North was established in New York in 1911. In that and the following year the work was introduced into New England with the allotment of three agents to work in the counties of Bennington, Windsor, and Caledonia, in Vermont.[14] In 1914, the passage by Congress of the Smith-Lever Bill provided for placing Extension workers in every county of any state willing to coöperate,[15] and by the last decade of this period the Ex-

[12] Swann, "Waking Up Massachusetts," p. 615.

[13] Vrooman, "The Agricultural Revolution," p. 115; *The Food Supply of New England*, p. 104. "The County Agent is to agriculture what the teacher is to the school and the pastor to the church," declared H. Styles Bridges in "The County Farm Bureau and Its Work," p. 598.

[14] *New England Homestead*, Vol. CII, No. 26 (June 27, 1931), p. 3; *The Food Supply of New England*, pp. 97 *et seq.*

[15] Vrooman, "The Agricultural Revolution," p. 115; *The Food Supply of New England*, p. 104.

tension Service had been organized throughout the hill country.[16]

The County Agent was of service to the farmer during the entire year. He had to be a good mixer, for a large part of his work was carried on by personal contact. He secured the coöperation of the more progressive farmers in making demonstrations of new and profitable methods of farm operation; he offered concrete and practical advice to anyone desiring help; he wrote weekly notes to the country newspapers, making suggestions on timely topics. He arranged "get-together" meetings at some well-run farm in the community where examples of good husbandry were everywhere evident. At these meetings, prize fields, well-kept barns, modern machinery, and the like were viewed, and in addition short talks were given, either by the County Agent or by agricultural experts obtained by him.[17]

Extension workers were constantly devising new ways in which they could be of service. One agent in Windsor County, Vermont, for example, conducted a vigorous and persevering campaign for the use of more lime to combat acidity of the soil. Largely as the result of his efforts, the amount of lime distributed on Windsor County farms increased from 250 tons in 1923 to 1,777 in 1929. "This fact alone," he noted in the spring of 1930, "is recommendation enough as to the benefits received

[16] In New Hampshire, for instance, Sullivan County was given a County Agent in 1913, Cheshire County in 1914, Merrimack, Coos, and Belknap Counties in 1915, Grafton, Rockingham, and Hillsborough in 1916, and Strafford and Carroll in 1917. By 1923, extension work was being carried on in 83 percent (196 out of 237) of the towns of the state which contained occupied farms.—Bridges, "The County Farm Bureau and Its Work," p. 596.

[17] The County Agent was always busy. As one observer pointed out in 1924, "He is the local agricultural leader. . . . He counsels, advises, suggests, demonstrates, discusses, addresses, and assists in the carrying out of programs and projects. . . . He spends three-eighths of his time in the office and five-eighths in the field. His work covers a wide field, a few lines being improved seed, control of animal and plant diseases, introduction of legumes, improved cultural methods, drainage, irrigation, system planning and operation, fertilization, liming, pest control, orcharding, farm accounts, farm planning, farm management, coöperative buying and selling, farm home projects, securing registered animals, cow testing, and testing for diseases."—*The Food Supply of New England*, p. 107

from its use."[18] In New Hampshire, in the early twenties, County Agents conducted twenty-six dairy feeding schools in the six dairy counties of the state. Little talking was done, and the dairymen worked out their own problems in rations and costs at a round table. A Hooksett farmer reported that he saved a dollar a day following his attendance at the school, while a Warner resident said that he saved $36 a month as a result of his study.[19]

The work of the County Agent was gradually supplemented by the Home Demonstration Agent and the County Club Agent. The duties of the former were to teach farm women how to become more efficient, and how to create a happier, healthier home life. She brought to the farm home information concerning diet and nutrition, and suggestions on dressmaking, canning, and interior decoration. She spent much time in the homes, discussing household problems and the smaller farm affairs. Of still further importance, she secured an interchange of opinion and experience among housewives by starting neighborhood clubs which met weekly or fortnightly.[20]

The County Club worker, the third member of the triumvirate of county field agents, had charge of the Junior Extension work. His efforts concentrated on the activities of the 4-H Clubs,[21] which were organized in the realization that the hope of future agriculture lay in the attitude of the young. The work differed from that done by the Boy Scouts in that it was more directly economic, but it resembled Scouting in its understanding of young people and its recognition of their gregariousness. Clubs were formed for girls as well as boys, and these were supervised by the Home Demonstration Agent. Each club was organized to carry out a definite project. If it were for boys, this might be the care of dairy calves, the growing of pigs, the

[18] Weekly notes of H. W. Soule, County Agent for Windsor County, in the *Bethel Courier*, March 6, 1930, p. 1.

[19] *The Food Supply of New England*, p. 105.

[20] *Ibid.*, p. 107.

[21] The H's stand for Head, Hands, Heart, and Health.

raising of potatoes or of corn, or the making of maple sugar.[22] In a similar way, a group of a dozen or so girls might be formed for the purpose of canning, cooking, housekeeping, dressmaking, garden keeping, or even poultry husbandry, and, like their brothers, they might display their work at the fairs.[23]

Boys' and girls' agricultural clubs were organized in Maine in 1911, through the coöperation of the College of Agriculture with the state Department of Education and the state Grange.[24] In 1913 the work was taken over as a definite part of the Extension service, and two state leaders were employed, one to supervise the boys' clubs, and the other the girls'. By the end of the following year, thirty-one clubs had been started, twenty-eight potato clubs for boys, and three canning clubs for girls; while several poultry clubs were in the process of being formed,[25] and the work continued to expand throughout the rest of the period. Similarly, in New Hampshire, the 4-H Clubs multiplied in number and influence as interest in Junior Extension facilities increased. The 963 boys and girls registered in clubs in that state in 1914[26] mounted to 1,523 in 1918[27] and to 2,500 by 1925. The greatest progress was made between 1925 and 1930, when the enrollment rose from 2,500 to 5,138, and the number of clubs increased from 258 to 472.[28]

[22] Club members were encouraged to exhibit their products. The Eastern States Exposition, inaugurated at Springfield, Mass., in 1916, included in its organization a department for 4-H Club work to which the hill country contributed its quota of teams, leaders, and displays. By 1930, most of the fairs in northern New England provided for Club exhibits and offered prizes.—*The Food Supply of New England*, p. 111; *New England Homestead*, Vol. CII, No. 26 (June 27, 1931), p. 19.

[23] H. B. Stevens, "New England Brings Some Ghosts Back to Life," p. 110; *The Food Supply of New England*, p. 108.

[24] Maine Department of Agriculture report for 1911, p. 256.

[25] Maine Department of Agriculture report for 1914, p. 445.

[26] Kendall, *First Annual Report of the Coöperative Extension Work in Agriculture and Home Economics, State of New Hampshire*, p. 6.

[27] Kendall, *The Story of Extension Work in New Hampshire during the Year 1919*, p. 5.

[28] Kendall, *Extension Work in New Hampshire, 1930*, p. 2. In 1926, six hundred more girls than boys were enrolled, but by 1930, this difference had decreased to only 186 in favor of the girls.—*Ibid.*

The first Club Agent in Vermont was employed in 1914, after the passage of the Federal Smith-Lever Bill, and, by 1921, 1,281 boys and girls in the state belonged to organized clubs.[29] By 1922, seven counties had County Club Agents, and in 1927 and 1928, four more were added, leaving but two counties in the northern part of the state without full-time workers. At the end of 1930, there were over 450 active clubs, with every county represented, each club having a local leader and a concrete program of work heading to a definite goal.[30]

The Farm Extension Service was of great value to the hill country in every line of its endeavors. The County Agents successfully demonstrated better farm practices to a large portion of the adult rural population, and enlisted interest and effort among them in the problems of efficiency and economy, helping to relieve the drudgery of their work and routine, and stressing the dignity of their vocation. The Home Demonstration work was an important factor in the improvement of home and community conditions, and the 4-H Club activities kept the young people interested in a definite project during the long vacation period as well as through the school year, and inculcated habits of industry and thrift among its members.

The Grange was an influential educational force throughout this period, as in the preceding one. The number of members increased rapidly during the first decade of the century, but remained fairly stationary thereafter. In New Hampshire, for instance, the number of Patrons—20,000 in 1897[31]—mounted

[29] They raised that year at marketing rates over $35,000 worth of products, at a cost of $17,000. A Pittsford boy made $91 on his dairy project and $351 on his poultry; a Guilford girl raised an acre and a half of corn. Such cases are exceptions, of course, but the club children usually made some profit from their work.—*The Food Supply of New England*, p. 111.

[30] *New England Homestead*, Vol. CII, No. 26 (June 27, 1931), p. 19. For a week each year, following the June Commencement and prior to the opening of Summer School, a state 4-H week was held at the University of Vermont in Burlington. This began in 1919 with 21 present. In 1930 over 200 delegates registered. This gathering has developed into a training school for a chosen group of club members and leaders.—*Ibid.*

[31] Metcalf, *New Hampshire Agriculture*, p. 29.

to 29,000 in 1910, but rose only to 30,000 in 1920,[32] and by 1930 had declined to 28,900.[33] In the latter year the Grange membership in Maine totaled 55,000, and that in Vermont, 14,300.[34] The organization continued to hold debates at its meetings on questions pertaining to farm and household economy as well as to state and national policy, and the younger members were encouraged to join in these discussions.[35] The society also took an active part in furthering agricultural legislation, working especially to obtain better school advantages for the children of rural districts.

The enthusiasm kindled by the Better Farming Specials, the stimulation engendered by the activities of the Farm Extension workers, and the efforts of the Grange all operated to rouse the hill country to a new lease of life. Other factors were also exerting an invigorating influence upon the region during this period, and it is to a discussion of these we shall now turn.

[32] Metcalf, "The New Hampshire State Grange," pp. 522-25.

[33] Commissioners of Agriculture of the Six New England States, *The Tercentenary of New England Agriculture*, p. 6. The number of Granges in the state, however, increased from 273 in 1928 to 278 in 1930. New Hampshire Department of Agriculture report for 1926-28, p. 22.

[34] Grange statistics for 1930 for northern New England, according to *The Tercentenary of New England Agriculture*, p. 6, are:

| | Number of Granges | Number of Members | Halls Owned |
|---|---|---|---|
| Maine | 445 | 55,000 | 367 |
| New Hampshire | 278 | 28,900 | 105 |
| Vermont | 150 | 14,300 | 44 |

[35] See, for example, Donovan and Woodward, *History of the Town of Lyndeborough, New Hampshire*, p. 405.

# XIII

## QUICKENING INFLUENCES

*What has made the farm more attractive of late? . . . It is the better system for enjoying life in the rural districts. . . . The telephone is in nearly every home; . . . the automobile has come to stay; other connecting links are being made. . . . The old farm on the hill is no longer isolated from the world.*[1]

DURING the first three decades of the twentieth century a number of developments occurred which tended to lessen the feeling of loneliness on the hill farms, and to stir the hill country from its lethargic state. The introduction and extension throughout the farming regions of daily mail service and of inventions providing for more rapid and closer communication diminished the isolation, while the short-lived and rather ineffectual "Back-to-the-land" movement, the slow increase of immigrant farmers, particularly the French Canadian, the inauguration of Old Home Week, and the far-reaching growth of the summer recreational industry, all served to bring new life into the region.

### New Contacts

Although the Rural Free Delivery system was inaugurated by the Post Office Department in the mid-nineties, it did not spread into the hill country to any extent until the first decade of the new century. The first delivery route in the Windsor, Vermont, region, for instance, was opened in September, 1903. Twenty-three and one-half miles in length, it served a territory

[1] Excerpt from address of A. A. Carleton, West Newbury, Vt., President of the Vermont Maple Sugar Makers' Association, in Vermont Department of Agriculture report for 1914 (Report of the Vermont Maple Sugar Makers' Association, p. 6).

of 165 square miles with 153 houses and a population of 650, the mail carrier receiving $600 a year and having to provide his own conveyance. The local newspaper warned those along the route that "People . . . desirous of service will have to erect boxes at their own expense. . . . Each box must be erected by the roadside so that a carrier can easily obtain access to it without dismounting from his vehicle."[2]

By the middle of the period rural mailboxes dotted every roadside, and the horse and buggy of the mail carrier zigzagged over the hills, bringing to the farm family daily contact with the outside world in the form of newspapers, magazines, and letters, which formerly had lain in the village post office a week or more awaiting the farmer's infrequent visits. The daily paper, containing market quotations of local and city prices, was of much importance. Hitherto obliged to haul his product to the nearest town without any definite idea of what the buyer would be willing to pay for it, the farmer now was able to foresee its probable market value.[3]

A quicker means of communication was the telephone, which, although it was introduced into the hill-country villages in the late seventies,[4] was just beginning to spread out in the country at the turn of the century. In 1900, a few outlying districts were offered this service by means of local neighborhood lines,[5] and

[2] This was before the carrier became "motor-minded"!—Clipping from the *Vermont Journal*, September 3, 1903, in a scrap book in the Windsor Public Library. The *Journal* announced at that time that another route west of Windsor was being laid out. See also the *Farmers' Cabinet*, April 19, 1900, p. 1, for a discussion of new R.F.D. routes in southern New Hampshire.

[3] Vermont Department of Agriculture report for 1912, p. 30.

[4] Among the first telephones to come to Vermont were those installed in St. Johnsbury in 1877, a year after Bell's patent had been granted. The local newspaper marveled on July 20, 1877, "The wonderful telephone has come: wires are stretched between C. C. Bingham's house and the drugstore and conversation is going on. This is a curiosity and will repay investigation."—The *Caledonian*, July 20, 1877, as quoted in *The Vermont of Today*, I, 263. See also Moore, *History of Candia, New Hampshire*, p. 425. The telephone reached Candia in 1882, when a line was strung out from Manchester.

[5] U. S. Industrial Commission, *Report*, Vol. X, Part 2, p. 415.

the next three decades marked a steady increase in installation,[6] as well as the gradual absorption of independent lines into the more comprehensive systems. In 1930, 61 percent of Vermont's farms, 63 percent of New Hampshire's, and 58 percent of Maine's reported telephones. This compared favorably with other New England states and the general average of the United States. Massachusetts stated that 65 per cent of her farms had telephones; Connecticut, 66 percent; and Rhode Island, 52 percent; while the proportion for the country as a whole was but 34 percent.[7]

The new instrument facilitated the exchange of those refreshing bits of news which are oftentimes less euphemistically designated as gossip. It even made possible a general conversation in which a representative from each family in the neighborhood could join, for the telephones were usually connected to one line which served a whole district. Moreover, there was no means of excluding any particular family from the discussion, for by taking down the receiver as soon as a ring was heard on the line, any person could hear what was going on, and the "click, click, click," as one receiver after another was removed, gave warning of the unannounced presence of numerous listeners. Long before the day of the radio, hill-country families had learned how to "tune in." The telephone benefited the farm family economically as well as socially. For example, the farmer no longer had to kill a dozen chickens, take them to town by team, and sell them for whatever the storekeeper was willing to give. He could now call his prospective customers and ascertain how many chickens were wanted and agree on the price before he killed any.[8]

[6] In 1913, the Vice-President of the New England Telephone Company announced that there were more telephones used in Vermont per 100 people than in any other state.—Vermont Department of Agriculture report for 1914 (Report of the Vermont Maple Sugar Makers' Association, p. 6).

[7] Reports of the Fifteenth Census: *Agriculture*, Vol. II, Part 1, pp. 54-55.

[8] As early as 1900 one observer asserted before the United States Industrial Commission that he did "not think of any one thing that has done so much

Another factor which served to lessen loneliness and also provided a means of getting farm produce, particularly milk, to market, was the advent of the "horseless carriage." In the first decade of the century the automobile was regarded as the plaything of the rich, although the hill country was beginning to take an interest in its possibilities. To stimulate this, the *New England Homestead* made its issue for August, 1910, a special "Automobile Number," filled with choice cuts of the cars of the day and with advertisements which proclaimed such new accessories as the self-starter and demountable rims on the more expensive makes.[9]

Even though the automobile was considered a very valuable addition to the equipment of the farm, northern New England lagged behind other sections of the country in the proportion of farms possessing cars. In 1920, only 26 percent of the farms in Vermont, 23 percent in New Hampshire, and 24 percent in Maine reported automobiles, while the farms in the United States as a whole averaged 31 percent, Wisconsin, 50 percent, and Illinois, 53 percent. The southern New England states were nearer their northern neighbors, Massachusetts having 26 percent, Rhode Island, 29 percent, and Connecticut, 30 percent.[10] After 1920, however, as the old "Model T" Ford began to come within the reach of even the poorer hill-country farmers through the liberal credit terms offered by ambitious dealers, the number of farms boasting cars steadily increased. In 1930 64 percent of the farms in Vermont, 62 percent in New Hampshire, and 59 percent in Maine reported automobiles, as compared to 58 percent of the farms in the United States as a whole.[11]

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. . . as the introduction of the local telephone to put them (the farm family) in touch with the whole community."—Testimony of the Treasurer of the Vermont Dairymen's Association in U. S. Industrial Commission, *Report*, Vol. X, Part 2, p. 415.

[9] *New England Homestead*, LXI (August 20, 1910), 140.

[10] Reports of the Fourteenth Census, Vol. V, Part 2: *Agriculture*, p. 514.

[11] Reports of the Fifteenth Census: *Agriculture*, Vol. II, Part 1, pp. 54-55.

The automobile was a greater force in the life of northern New England than Extension work, the Rural Free Delivery, or the telephone. "Today," remarked the *Homestead* in 1910, "farmers owning automobiles and living within a ten mile radius of any town of size, consider themselves as living in town. . . . Farmers testify it is the best cure for 'cityitis.' "[12] A car gave the hill-country farmer a greater sense of freedom; no longer were his contacts restricted to the neighborhood in which he lived, or his trading to the nearest small village and the mail-order houses. On Saturdays he could pack his family into the "flivver" and drive to the larger villages and even the city, where they could shop in the stores and go to the movies. On Sundays they could drive to visit relatives and friends who lived many miles distant. When the dairy farmer wanted to get grain from town, he could jump into his car, drive down to the village and be back on the farm in an hour or two, instead of having to spend all morning and perhaps part of the afternoon carting it by horse and wagon.

Even the farmers who did not own cars enjoyed the useful services of those operated by others. The milk-gathering truck, for instance, reached quite remote farms and provided a market for milk at their very doors.[13] The *New England Homestead's* "Automobile Number" noted other ways in which the advent of the motor car was beneficial. The engines could be transformed into handy power machines,[14] and in later years, after its road-traveling days were over, many a sturdy automobile engine was utilized to provide power to saw up the winter firewood.[15]

The increasing use of the automobile made the hills leading

[12] *New England Homestead,* LXI (Aug. 20, 1910), 146. See also, Address of A. A. Carleton, President of the Vermont Maple Sugar Makers' Association, in Vermont Department of Agriculture report for 1914 (Report of the Vermont Maple Sugar Makers' Association, p. 6).

[13] See below, p. 336.

[14] *New England Homestead,* LXI (Aug. 20, 1910), 146.

[15] Upson, "Electricity on the Farm," p. 32.

up to the back farms seem even steeper than in the days of the horse, for the engines, especially in the earlier models, frequently balked when overheated by a stiff ascent—something which a horse could be talked out of. In rainy weather, chains had to be fixed to the back wheels of the car before it could climb the hills, and it was often necessary to use them even on level stretches to prevent the automobile from slipping off the highly crowned dirt road. Furthermore, the winter winds piled the hill roads with deep drifts, through which an automobile, unless it was transformed into a "snowmobile" with tractor treads, could not push. In the latter half of this period, however, the main roads were cleared regularly by the state, and by the later twenties the majority of the farmers along them were using their cars all winter.

By this time, too, the secondary roads in the majority of towns were being plowed out at town expense. Although comparatively few farmers on the roads leading up narrow valleys and over hills used automobiles in the winter season, the clearing away of snowdrifts facilitated communication with the nearest village, and aided the Rural Free Delivery carrier and the driver of the milk-gathering truck. A local country newspaper correspondent, living in the remote farming neighborhood of 'Lympus,[16] in Bethel, Vermont, declared one week in February in the early thirties,

> The tractor and snow plow has [*sic*] been doing some good work in this place since the last storm. It is surely a welcome sight as we all feel that we are not isolated from the outside world as it has seemed other winters.[17]

In the first three decades of the twentieth century electricity began to be introduced on the more prosperous farms. A few depended upon their own private generating plant for electrical

[16] A shortened form of Olympus, a locality in the southwest part of the town of Bethel, in central Vermont. The same name was used by Mary E. Waller in 1904, in her "best-seller," *The Woodcarver of 'Lympus*.

[17] News from 'Lympus, *Bethel Courier*, Feb. 18, 1932.

current, but the majority procured their power from public utility wires which ran through or near their farms. The expense of construction for a long time greatly restricted the number of power lines strung out into rural areas for the purpose of serving farm customers, and even when a high voltage line happened to pass close by, the cost of installing a transformer to "step down" the current was often prohibitive. For these reasons, only 11 percent of the farms in Vermont reported electrical connections in 1920, and the proportions for New Hampshire and Maine were but 11 per cent and 10 percent respectively.[18] During the next decade, however, under the stimulation from power companies which, because of their desire to sell more current, were eager to coöperate in building rural lines, the number mounted rapidly. In 1930, 30 percent of Vermont's farms, 33 per cent of Maine's, and 41 percent of New Hampshire's were lighted by electricity, as compared with 13 percent of farm homes in the country as a whole. In southern New England, over which power lines wove a closer net, it was higher, with 63 percent of the farms in Massachusetts, 56 percent of those in Connecticut, and 58 percent of those in Rhode Island reporting electricity.[19]

The radio was the last important invention of the period to offer new contacts between the farm and the outside world. The first broadcasting station was opened in 1920. For some years only the more well-to-do and progressive farmers were able to afford radios, but as they were steadily improved and sold at increasingly lower prices, more husbandmen purchased them. With one in the homestead, the farm was no longer isolated from the best music, nor the worst.[20] In the evening, a turn of the dial transformed the farmhouse into a concert hall, a vaude-

[18] Reports of the Fourteenth Census, Vol. V, Part 2: *Agriculture*, p. 514. All these percentages include farms reporting gas as well as electric light connections, but almost no farms were served by gas in northern New England.

[19] Reports of the Fifteenth Census: *Agriculture*, Vol. II, Part 1, p. 56. These figures include only electrical power.

[20] C. E. Smith, "Destiny Comes to New England," p. 444.

ville stage, or a dance pavilion. Daytime programs entertained the housewife as she worked, offering her all kinds of household hints, while the farmer could listen to daily weather reports and to market quotations on farm produce. In 1930, for instance, the Vermont Extension Service provided for a special weather broadcast during the haying season. Formerly, the farmer had to cut his hay and trust to luck that the sun would shine on it until it dried; now the radio told the hill-country husbandman every morning during this season whether or not they could expect several days of good weather.[21]

The inhabitants of rural New England enjoyed in 1930 means of contact with the outside world of which their grandfathers never dreamed. The Rural Free Delivery, the telephone, the automobile, and the radio, by strengthening the ties between hill-country farms and the rest of the world, diminished the feeling of isolation, and served to enliven the monotony of farm life.

### New Permanent Residents

Two different groups of people came into rural northern New England as permanent inhabitants during this period. In contrast with the increasing throngs of summer visitors, their numbers were very small, and, notwithstanding the fact that at that time many citizens of the hill country considered them more valuable to its existence than the temporary residents, they had almost no lasting effect upon the tone of its life.

The more numerous group consisted of the immigrant farm families which continued to trickle in, of which the greatest part were French Canadians, whose advent had so disturbed commentators in the previous period.[22] Although, during the first two

[21] Special arrangements were made with Station WGY at Schenectady, New York. The Agent for Windsor County, Vt., announced "This weather report service will be broadcast . . . at 10:00 o'clock Eastern Standard Time, each day. Local showers are not covered by the forecast, but a good or bad stretch of weather will be forecast for a two to four day period."—*Bethel Courier*, July 3, 1930, p. 1.

[22] See above, pp. 161-63.

decades of the twentieth century, the *habitants* of Quebec migrated to the textile cities of southern New England and the Merrimack valley in New Hampshire in much greater numbers than to the hill country, nevertheless, by 1920 the Canadian-born farm operators, most of them of French descent, greatly outnumbered all other groups of foreign-born farmers in the region. In Vermont at that time there were 2,663 farm operators who had been born in Canada, the next largest group being composed of 199 native Irishmen; in New Hampshire there were 1,514 Canadian-born farmers, with 210 Scots forming the next most numerous group; in Maine there were 3,088 Canadians, followed by 284 Swedes.[23]

This influx, however, did not become a major factor in the farm population of these states. According to the census of 1920, only 10 percent of the total white farm population of Vermont was foreign-born, only 8 percent born of foreign parentage, and only 10 percent born of mixed parentage. The proportions for New Hampshire were about the same: 10 percent foreign-born, 8 percent born of foreign parentage, and 8.5 percent born of mixed parentage, while the figures for Maine were 7 percent, 5 percent, and 9 percent respectively. The returns for southern New England, however, show that in the same census Massachusetts reported 19 percent of her farm population foreign-born, 21 percent of foreign parentage, and 8 percent of mixed parentage; Connecticut, 21 percent foreign-born, 24 percent of foreign parentage; and 7 percent of mixed parentage; and Rhode Island, 14 percent, 17 percent, and 6 percent respectively.[24] Although the number of foreign-born farm operators in northern New England increased during the next five years to 13 percent of all the farmers in Vermont and New Hampshire, and 9 percent in Maine,[25] in southern New

[23] Truesdell, *Farm Population of the United States*, pp. 108-9. A detailed account of the number of foreign-born white farm operators in the different New England states in 1920 is given in the Appendix 2, Table IV.

[24] *Ibid.*, p. 102.

[25] Crawford, "The New England Farm Coming Back," p. 170.

England the proportion jumped to 23 percent in Rhode Island, 28 percent in Massachusetts, and 34 percent in Connecticut.[26] The immigrant farmer in these latter states frequently settled on a small piece of land near an industrial town, and supplemented his income from the farm by commuting into town to work in a factory, either steadily or only during the winter. Fewer opportunities to secure such a livelihood obtained in northern New England, and for this reason a smaller number of immigrants moved there.

The second, and very small, group of new permanent residents were those who went from the near-by cities into the hill country as a part of the back-to-the-land movement, which reached its height toward the end of the first decade of the century. Many people in New England, as in other sections of the country, had become alarmed over the rapid increase in the urban population of the United States, which had been especially noticeable during the last quarter of the nineteenth century. They took it for granted that the percentage of the total population which gained its livelihood by farming in 1880, for example, was the proportion that always ought to be engaged in that pursuit, disregarding both the possibility that there were too many men in agriculture in 1880 and the fact that the farming population, through the use of more machinery and improved methods, had become more productive per man.[27] They entered into the back-to-the-land movement with enthusiasm, and urged that maladjusted urban dwellers would do well to move out on to the land and settle on unoccupied farms.

[26] *Ibid.* For a discussion of the increase in foreign-born farm population of southern New England, see Wilhelm, "Is New England Vanishing?" p. 43; Hopkins, "Whom the Land Loves," p. 620; Cance, "Slav Farmers on Abandoned Farms," p. 954. The latter commentator observed of the immigrant farmers in southern New England that their "agriculture is primitive, extensive, and self-sufficing. . . . Milk is really produced at a loss. . . . Were it not for the income derived from mill employment and outside labor, existence would be impossible in some instances."

[27] Truesdall, *Farm Population of the United States*, p. 8.

The general interest in the idea of turning the surplus city population to the abandoned farms brought forth a crop of articles on the subject. Some, like two by a city-bred college woman who with her husband had bought a run-down farm in the hills of Vermont, told of the difficulties and satisfactions to be found in the venture,[28] and attempted to influence other city dwellers to follow in their steps.[29] To demonstrate how cheaply a family could live in the country, this author gave the following account of the expenses for herself and her husband for the year 1909:[30]

| | |
|---|---|
| Meat | $ 20.41 |
| Groceries, wholesale | 52.82 |
| Groceries, retail | 50.41 |
| Food (total) | $123.64 |
| Cow's keep | 35.00 |
| Horse's keep and shoeing | 103.00 |
| Seed and fertilizer | 42.47 |
| Taxes and fire insurance | 45.00 |
| | $449.11 |

Other writers suggested various ways in which the "back-to-the-landers" might gain the cash income which they must have if they were to meet the expenses itemized above. One recommendation often made was the combination of small farming with work in some local factory in a country community.[31] Unfortunately, this plan, when put into operation, was rarely successful. Only the occasional individual was able to combine

[28] Dodd, "A Foothold on a New England Farm," pp. 571-73, and "Cutting Loose from the City," pp. 287-90.

[29] In the first article, Mrs. Dodd finds many things about farm life uncongenial, but in the later one she tells how she and her husband had become acclimated and were able to make a living from their farm. One of the greatest difficulties the transplanted city dwellers had to face was the unaccustomed isolation. Mrs. Dodd wrote, "A community of several families moving from the city to neighboring farms could make the life quite different, but as yet, we know of such few and far-between 'city-dwellers' starting farms that social ties are out of the question."—Dodd, "A Foothold on a New England Farm," p. 572.

[30] Dodd, "Cutting Loose from the City," p. 290.

[31] "Reclaiming Abandoned Farms," p. 136.

mill work with farm life. For the most part, the indoor life of the factory seemed to unfit its employees for the arduous duties of the farmer.[32] A further drawback to this plan for northern New England lay in the scarcity of manufacturing plants.

Notwithstanding the optimistic pictures of its enthusiastic supporters, the back-to-the-land movement never reached much beyond the "talk stage." While it did influence a few people to take up small farms, more or less specialized, and situated near a city,[33] it seldom extended outside the fringe of suburbs.[34] The meager results of the agitation stand as a mute recognition of its lack of economic foundation. The futility of beseeching people to reoccupy land which was no longer economically profitable for farming was brought out in many effective articles.[35] Nevertheless, the movement was not entirely a waste of breath. Even though it accomplished little in the way of adding to the permanent agricultural population of New England, it helped to fan the desire of city dwellers for a summer home in the country, and aided in bringing more people to the region for the summer months.

### Old Home Week

*Come home! We'll ring each tuneful bell,*
*And hang our banners out,*
*And honest hearts with joy shall swell,*
*To give their welcome shout.*[36]

If permanent residents could not be attracted into the hill country in sufficient numbers to fill the gaps left by those who

[32] Stevens, "New England Brings Some Ghosts Back to Life," p. 109.

[33] Cance, "The Decline in the Rural Population of New England," p. 101.

[34] Faulkner, *The Quest for Social Justice*, p. 6.

[35] Such as, *e.g.*, Gilman, "Two Fools and a Farm," and Roosevelt, "The Abandoned Farm." See below, p. 377, for discussion of the influence of hard times in persuading people to leave the city and go into the country to live.

[36] "Invitation to the 'Portsmouth Boys' in Boston," 1853, a precursor of the avalanche of Old Home Week verse, as reprinted in an article by Thomas F. Anderson, "Old Home Week in New England," p. 684. The "Invitation" was given by the citizens of Portsmouth, N.H.

had departed, the next best thing, it seemed to public authorities, was to induce the people who had moved away to come back for a visit. The temporary influx would freshen the humdrum lives of those who had stayed at home, and, at the same time, bring a little money into the old home town. Well-to-do returning sons might be persuaded to donate money for some public enterprise, such as a bandstand, a schoolhouse, or a community hall, and a considerable sum would be spent by the visitors for board and room and amusements. Many would buy souvenirs and perhaps some maple sugar, while others might make arrangements with the local farmers to furnish next winter's supply of potatoes or apples.

The idea of an Old Home Week, as we know it today, was voiced in 1897 in an article in the *New England Magazine* when Frank W. Rollins, later Governor of New Hampshire, exhorted the sons and daughters of the Granite State to listen to the call of their home land and revisit the spot where they were born.[37] The plan was not entirely new. The custom of holding special gatherings for those who had moved away from northern New England was introduced in mid-century, when, in 1853, the citizens of Portsmouth, New Hampshire, held the first "home-town" reunion for its "boys" who had moved to Boston.[38] In the seventies and eighties, the local agricultural fair had provided further stimulus for the project. The local town fair, which should not be confused with the county or state fair, has been called the forerunner of Old Home Day, for this was the one event of the year which brought all the people of the community together, and former residents made it the occasion for returning to visit relatives and revive moribund friendships.[39]

[37] Rollins, 'New Hampshire's Opportunity," p. 542. Mr. Rollins was Republican State Senator in New Hampshire, 1895-97; President of the State Senate, 1895-99; and was elected Governor in 1899. See the biography in *Lamb's Biographical Dictionary of the United States.*

[38] Anderson, "Old Home Week in New England," pp. 684-85.

[39] Lyford, *History of the Town of Canterbury, New Hampshire,* I, 205.

It was not until the end of the century, however, that the first definite suggestion was made that a week known as "Old Home Week" be set apart. In 1899, Mr. Rollins, then Governor of New Hampshire, expressed such a wish at a gathering of the Sons of New Hampshire Society in Boston. The proposal received wide endorsement throughout the Granite State, and on the Governor's recommendation, the State Board of Agriculture called a meeting for the purpose of forming an organization to carry out the plan. This was held on June 6, 1899, with several hundred people present, among them Selectmen from different New Hampshire towns, delegates from the various state societies, and representatives of the Grange. The last week in August, including the Labor Day week-end, was designated as Old Home Week, and during the summer sixty-five local Old Home Week Associations were formed. Each town made up a list of its former residents living outside the state, and sent invitations to all. In addition to these special notifications, Governor Rollins issued a general call.[40]

Mont Vernon, a little town which had reached its maximum population in 1830 and had been declining steadily ever since,[41] was the first to send out its invitation for the celebration, which was to begin all over the state on August 26. According to the *Boston Globe,* which carried a full account, the hotels, boarding houses, and private dwellings in that town were jammed on the

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Plowing matches, trials of strength of draft teams, and rural sports were attractive features at these local fairs, while the displays in the Town Hall included not only specimens of the needlework and cookery of the women of the community, but also the work of the blacksmith, the cooper, and the shoemaker.—*Ibid.*

[40] Report of Frank W. Rollins's speech in "Old Home Week," p. 210. One writer reported that by August, 1900, there were seventy local Old Home Week organizations in New Hampshire.—Burnham, "Old Home Week in New Hampshire," p. 647.

[41] The population of Mont Vernon in 1830 was 763; by 1900 it had declined to 463. In 1930, it had a population of 302. Charles J. Smith, *History of the Town of Mont Vernon, New Hampshire,* p. 234; Reports of the Fifteenth Census: *Population,* Vol. I, p. 1111.

first day with returning natives and former residents, a large number of them from Boston and other near-by points. The homes and stores were swathed in bunting and flags, and hundreds of Japanese lanterns adorned the lawns of the more pretentious houses along the main thoroughfare. By eight o'clock declared the reporter, bonfires[42] and fireworks illuminated the town and "made merry the crowds that perambulated the streets."[43] A reception was held in the Town Hall by the "Home Week" Committee, and music was furnished for dancing "until midnight." Similar festivities ushered in the celebration in other towns.

The programs of these Old Home Weeks were marked by both variety and verbosity. The variety came in the innumerable events planned for the week, from grand concerts and parades to picnics and dances. The verbosity had its innings during long exercises when divers distinguished sons who had gone out and "made their mark in the world" told the old home folks how they had done it, or when the countless "special poems" written by local literary lights were declaimed. So indispensable did this doggerel become that one contemporary declared "No local industry flourished more than the manufacture of Old Home Week verse."[44]

The diversity of the program was increased by such special features as hose-reel tests and pie-eating contests, the latter held for the edification of the hosts as well as the visitors. Local talent gave dramatic performances, sometimes producing tableaux of old-time scenes or historical events. The guests were

[42] These fires were a special feature in the earlier history of Old Home Week. By 1906, huge bonfires at the top of the highest hill of each town observing the Week were touched off on the first evening to inaugurate the celebration. According to a contemporary account, "The widespread illumination was impressive."—Anderson, "Old Home Week in New England," p. 681.

[43] *Boston Globe*, Aug. 27, 1899, as quoted in Charles J. Smith, *History of the Town of Mont Vernon, New Hampshire*, p. 185.

[44] Anderson, "Old Home Week in New England," p. 684. See, *e.g.*, the exhortation to the "Sons of New Hampshire" Society in Boston to return for Old Home Week in the *Farmers' Cabinet*, Jan. 25, 1900, p. 1.

taken for complimentary drives around the town. Boat races were run; clambakes and corn roasts arranged. Exhibits of local historic relics, illustrated lectures, military parades, lawn parties and teas, special family reunions, balloon ascensions if the weather was propitious,[45] and, in later years, an automobile procession or perhaps an airplane demonstration, were offered to show the homecomer how much his presence was appreciated.

For the first few years, the celebrating of Old Home Week met with unqualified success. As a novelty it won wide support. In 1906 the institution received official sanction when the New Hampshire legislature enacted a law authorizing the towns and cities of the state to vote money for Old Home Week purposes.[46] In later years, however, the observance enjoyed a less enthusiastic response, although it was claimed in 1929 that there were still as many local celebrations in the Granite State as there had been in the years immediately following 1900.[47] Many towns, however, observed the occasion only the first year; others sponsored reunions biennially; and one little town, Croydon, in the east central part of the state, celebrated triennially —as often as it could afford, with only two hundred and fifty inhabitants.[48]

The neighboring states of Vermont and Maine never adopted the Old Home Week idea in so whole-hearted a fashion. Nevertheless, they followed New Hampshire's suit at once, for Maine sponsored an official Old Home Week in 1900,[49] and in the same year the Vermont legislature designated as its period for reunion the week having within it August 16, the anniversary

[45] Anderson, "Old Home Week in New England," p. 681.

[46] "Old Home Week," p. 220; Anderson, "Old Home Week in New England," p. 684.

[47] "Old Home Week," p. 220.

[48] *Ibid.* Croydon's population a century earlier, in 1830, was 1,057. In 1920, there were more people still living who had moved away from this town than who lived in it.—*Ibid.*

[49] H. W. Gleason, "The Old Farm Revisited," p. 678.

of the Battle of Bennington and a legal holiday in the Green Mountain State. Its first official observance was held in 1901, with forty-five towns participating. By the middle of the second decade of the century, however, interest in the occasion had waned, and eventually most of the towns sponsoring a reunion held an Old Home Day instead of an Old Home Week.[50]

Benefits both material and cultural derived from the observance of these Old Home celebrations. From a material point of view, definite contributions were made which redounded to the town's welfare. The reunions, with their influx of visitors, spurred trade and thus enabled local merchants to dispose of a considerable quantity of stock, especially souvenirs. Still more important were the contributions of returning native sons. When they came back to their birthplace and found their old home farm in a run-down condition, they frequently bought the place and repaired the buildings, occasionally employing the former owner as caretaker.[51]

In many cases, moreover, these visits stimulated useful gifts to the town. An example of this has been given in a local Vermont newspaper which contained an account of a "Reception to the Town's Benefactor" in appreciation of the present of a new hall to the little village by a native son who had left the town "some fifty years ago." In the description, the local correspondent explained enthusiastically, "There is a fine basement with a hardwood floor where dancing, card parties, basketball, and town meetings can be held. The auditorium upstairs is specially for plays and entertainments." The short speech made by the donor at the reception indicated what was in his mind in providing this new social center, when he said, "I hope what little I have done for you, you will enjoy and that it will help bring back to this place people who have moved away, if only for a short visit."[52]

[50] *The Vermont of Today*, II, 140-41.
[51] Batchelder, "The Agriculture of New Hampshire," pp. 130 *et seq.*
[52] Pittsfield, Vt., item in the *Bethel Courier*, Aug. 30, 1934, p. 4.

Culturally, too, the hill-country towns of northern New England benefited by these observances. Friendships were renewed and strengthened between those who moved away and those who remained, and these new contacts presented the local people with fresh viewpoints. The "sprucing-up" of the village, in preparation for the festival, often led to lasting improvements.[53] These occasions also stimulated a certain amount of pride in the town and interest in its history and current condition. The write-ups and bits of local history often printed by the newspapers in special illustrated editions were of permanent value, and in some cases, the celebrations resulted in the compilation of town histories, with financial aid frequently bestowed by returned native sons. An impetus was given to the marking of historic sites by means of plaques as a part of the ceremonies. At Newport, New Hampshire, for instance, as a feature of an Old Home Week program a tablet was dedicated at the birthplace of Mrs. Sarah Josepha Hale, best known, perhaps, as the author of "Mary's Little Lamb," but also for forty years editor of *Godey's Lady's Book*.[54]

Probably the greatest contribution of these occasions, even though it was indirect in its effect, was the influence that the celebrations had in bringing people into the hill regions of northern New England in the most delightful part of the year, and thus spurring the growth of the summer recreation business.

[53] H. W. Gleason, "The Old Farm Revisited," p. 678; C. J. Smith, *History of the Town of Mont Vernon, New Hampshire*, p. 189.

[54] "Old Home Week," p. 220. Mrs. Hale was also the person most influential in the establishment of a national Thanksgiving Day, which she induced President Grant to proclaim.—*Ibid.*

# XIV

## THE DEVELOPMENT OF THE SUMMER RECREATION INDUSTRY

*Some there are in New England who declare that it is not cows we should milk, but city people. The latter come with full money bags, overflowing with profits that they have got the Lord knows where. What more should we ask unless it were manna from Heaven?*[1]

THE growth of the summer recreation industry during the first three decades of the century proved to be more beneficial to the New England hill country than any other single factor except the development of dairying. Although it was not until the automobile came into general use that the business assumed a position of primary importance, its roots go back several decades.

### Beginnings

By the sixties Vermont contained a dozen or more hotels and watering places which were filled during the season with well-to-do visitors from Eastern cities, while a still larger number of prosperous city people were enjoying the beauties of the mountain and lake regions of New Hampshire and Maine.[2] The guests, however, were entirely from the wealthy and leisure classes, for before the last quarter of the nineteenth century a summer vacation was the privilege of the few. But as the number of people employed in indoor occupations in the cities

[1] Stevens, "New England Brings Some Ghosts Back to Life," p. 108.

[2] *Vermont Chronicle*, Sept. 19, 1849; Hayes, *History of the Town of Rockingham, Vermont*, pp. 379-80; *Vermont Historical Gazetteer*, I, 89, 204; II, 261, 317, 700; III, 366, 1137, 1190; *Farmers' Cabinet*, Aug. 25, 1875, p. 2 (Mont Vernon as a summer resort, with five hotels and boarding houses); *History of Coos County*, pp. 121, 414 ("Jefferson Hill is one long line of summer hotels and boarding houses"); Jackson, *History of Littleton, New Hampshire*, II, 593.

grew, the need for a week or two of rest and change became increasingly felt, and by the turn of the century the vacation period had reached the clerks and stenographers.[3] By the eighties many vacationists whose income did not permit the luxury of the hotels began to spend their holidays as boarders at some farmhouse, perhaps near their childhood home, or recommended to them by a friend or acquaintance in the city. Each year they came in greater numbers, until by the nineties the hill country began to foresee possibilities for the development of a lucrative industry.[4]

The business was carefully fostered. State officials, agricultural club workers, and public-spirited citizens throughout the region put forth every effort to attract summer visitors. Discussions at farmers' meetings, articles in farm magazines, and pamphlets issued by the states offered advice to the farmer and his wife on how to keep the boarders contented and desirous of returning another year. The value of good, well-cooked food and well-planned menus was stressed from the first. The hill-country housewife, far too prone to rely on meat, potatoes, and pie, was urged to serve plenty of chicken, fresh eggs, good butter, good bread, and fresh vegetables out of the garden, and above all else to "go bury the frying pan twenty feet deep in the pasture."[5] Ways in which to increase the attractiveness of the farm home, inside and out, and to add to the comfort and pleasantness of the sleeping rooms were suggested, and the provision of some form of amusement for the times when inclement weather kept people inside was urged.[6]

[3] Morison and Commager, *The Growth of the American Republic*, pp. 771-72.

[4] "There is a grand opening in New Hampshire for people desiring to engage in the summer boarding business," declared the New Hampshire State Commissioner of Agriculture and Immigration in 1891 (New Hampshire *Annual Reports, 1891*, II, *Report of the Commissioner of Agriculture and Immigration*, p. 203), and a Vermont husbandman observed two years later at a farmers' meeting: "This advent of summer boarders into the State appears to be a hopeful matter for Vermont and one that will at least benefit us financially."—Vermont Board of Agriculture report for 1893, p. 10.

[5] Rollins, "New Hampshire's Opportunity," pp. 535-36.

[6] Wiltshire, "The Summer Boarder as an Asset," p. 623.

The volume and scope of the information offered increased every year. In April, 1930, for example, the Agricultural Extension Service of Vermont, coöperating with the state Publicity Bureau and the state and local chambers of commerce, arranged conferences in two different parts of the state on the management of the tourist business. The program for these meetings consisted of talks and discussions on such subjects as "Presenting an Attractive Exterior," "Making the Tourist Comfortable," "The Efficient Kitchen," "Vermont as a Playground," "How to Attract and Hold the Tourist," "Supplying the Tourist with Home Grown Fruit and Vegetables," and "Meals for the Tourist."[7] In similar fashion, the New Hampshire Extension Service, in March, 1931, conducted a well-attended conference at Durham, at which addresses were given on such topics as "How Roadside Shops Can Be Turned into Money Attracting Magnets," "Successful Management of a Tea Room," "Meal Preparation," and "What the Tourist Wants."[8]

In the nineties the great popularity of the bicycle inspired leaders in northern New England with the hope of attracting cyclists to tour their respective states.[9] Although at this time the favorite means of travel for summer people was by livery team,[10] a few of the more active vacationists were interested in the possibilities of bicycling. To point out to potential sum-

[7] *Burlington Free Press*, April 10, 1930, p. 9. The meetings were held in Rutland and St. Johnsbury Vt.

[8] Roadside Operators' Conference, March 25-26, 1931, *Proceedings*, pp. 2 *et seq.* Two hundred and ten people registered at this conference, the first of its kind in the state.—*Ibid.*

[9] At least one contemporary writer, however, feared that the coming of bicycling tourists might not be wholly beneficial. After words of regret over the disappearance of the hospitable wayside taverns from the hill-country roads, he wrote, "Something similar, it is hoped, may be brought in by the bicycle. It is much to be feared, however, that the new bicycle road-house will be nothing more desirable than a mammoth stand-up lunch counter."—A. F. Sanborn, "The Future of Rural New England," p. 82. Truly, a prophecy of the roadside "hot-dog" stands of three decades later!

[10] Spear, *Report on Summer Travel for 1894*, p. 7.

mer visitors the delights of touring that state on a wheel, the Vermont Division of the League of American Wheelmen in 1895 published an illustrated pamphlet called *The Road Book of Vermont,* a worthy forerunner of the automobile guidebook. The best routes were carefully explained, and the different sections were labeled as "level: unnoticeable grades," "hilly: medium grades," "very hilly: heavy grades," and finally "mountainous: generally unridable."[11] While no routes listed in the booklet went over "mountainous: generally unridable" roads, several, unavoidably in a region with such a topography, included stretches called "very hilly: heavy grades."

In the neighboring state of New Hampshire, like measures were taken. In fact, that enthusiastic citizen, Mr. Frank W. Rollins, instigator of the first organized "Old Home Week," urged in 1897 that a bicycle path be built at one side of the main roads for the wheelmen, and that repair shops be established at suitable intervals. "Can you not see yourself," he exclaimed, "skimming like a swallow along perfectly kept bicycle paths?"[12] Few summer visitors, however, were able to picture with any great degree of pleasure the cycling opportunities of the hill country. One might skim "like a swallow" on the down grades, but uphill pumping was no vacation.

Even before the automobile came into general use, it was realized that the desirability of a given location was very often judged by the condition of its roads.[13] It was obvious, therefore, that one of the most fruitful ways to promote the summer industry lay in improving the existing system of highways. Up to the twentieth century, the roads in practically all the hill country were maintained by the towns, except during the period when turnpike companies took charge of a few. The system was

[11] Vermont Division of the League of American Wheelmen, *Road Book of Vermont*, p. 2.

[12] Rollins, "New Hampshire's Opportunity," p. 538.

[13] Batchelder, "Automobiles and Their Regulation," p. 103; Wilson, "The Roads of Windsor," p. 302.

an unfortunate one, particularly when it involved the maintenance of the "through routes," for although some towns kept their roads in good condition, others allowed theirs to become at times almost impassible.

Various arguments were raised against this decentralization of responsibility. Complaints were made in New Hampshire in 1897, for instance, that the local men selected at the town meetings were frequently incompetent, lacking knowledge of road building beyond such ideas as they had picked up in the hard school of experience. Moreover, the money appropriated by the town for road work during the year was usually exhausted at an early date, and the roads had to go untouched for the balance of the year. Finally, the system of working out taxes on the highway was an extremely pernicious one, such labor usually being done in a perfunctory manner and generally in the wrong season of the year.[14]

## Good Roads

In New Hampshire highway improvement under state supervision began in 1903, when the legislature enacted a law providing for a more economical and practical expenditure of the money apportioned by the state for the construction and repair of roads. Hitherto that appropriation had been spent under the oversight of town and county officials, but now the governor was authorized to appoint an engineer to take charge of all

[14] Rollins, "New Hampshire's Opportunity," p. 536. The system of working out taxes by labor on the highway was described in 1870 by a member of the Massachusetts Board of Agriculture, "One of the towns of the State chose thirty-five surveyors as usual to superintend the repairing of roads. One of them was a fiddler and had no other occupation at that time. He called out his men . . . . Some of these men had not paid their taxes for six years. They all went to work without any team, with their hoes, and had a jolly good time telling stories and cracking jokes while they reclined under the shade of the trees by the roadside. After the afternoon passed, the fiddler told them that they had worked well, that their taxes were paid and crossed out."—Massachusetts Board of Agriculture, report for 1870-71, pp. 44, as quoted in H. B. Hall, A Description of Rural Life and Labor in Massachusetts at Four Periods, p. 161.

highway work upon which state funds were expended. In the same year, New Hampshire took over the upkeep of certain roads in the White Mountain resort region, and began building new ones in that territory.[15]

In 1904 interested citizens formed the Good Roads League, later reorganized as the New Hampshire Highway Association. Thanks to steady agitation from this and other sources, the legislature in 1905 took measures which marked a new epoch in road improvement. A state highway department was created, and a new highway law adopted. Previous enactments had been in the nature of special statutes to improve specified lake, mountain, or seashore roads, but now a yearly appropriation of $125,000 was set aside to be apportioned at a given ratio to amounts raised by the towns seeking state aid. By 1917, increased appropriations had brought the amount distributed annually up to $200,000.[16]

Another important law passed in 1905 provided for the conversion of approximately 125 miles of highway into roads to be maintained solely by the state. These were almost entirely in the summer resort areas.[17] By 1914, 106 miles of improved highway, costing $500,000, had been constructed.[18] In 1915 a system of ten cross-state roads was marked out by the Legislature, and two years later, six more were added. At the same time, that body accepted and approved the law providing for Federal aid on the most important interstate routes.[19] By the end of the second decade of the century, the Granite State was thoroughly committed to a plan of permanent highway construction, added revenue being found for this in the imposition

[15] *New Hampshire: Resources, Attractions, and Its People*, III, 719.

[16] *Ibid.*

[17] Address of Paul D. Sargent, Maine State Highway Commissioner, in New England Governors' Conference, *Proceedings* (1908), p. 110. See also U. S. Department of Agriculture report for 1905, p. 626. In 1893 Massachusetts made her first appropriation, $300,000.—Hall, A Description of Rural Life and Labor in Massachusetts at Four Periods, p. 175.

[18] "Good Roads: A Distinctive New England Asset," p. 3.

[19] *New Hampshire: Resources, Attractions, and Its People*, III, 719-20.

of a gasoline tax, which by 1927 amounted to three cents a gallon.[20]

A similar movement took place in Vermont, beginning in the nineties and continuing with increasing intensity until the depression following 1929. In 1892 the Legislature provided for a small special tax[21] for the improvement of roads, and at the same time prohibited town taxes from being "worked out" by labor instead of being collected in money. Provision was also made for the election of road commissioners in each town. Two years later the Legislature voted that state aid should be given only for improvements of more or less permanent character on the main highways.[22]

The first step toward the control of roads by a central agency was taken in 1898, when the office of Highway Commissioner was created. This official was authorized to oversee the spending of state appropriations in the towns, and to give advice to local road commissioners on such matters as proper methods of drainage, most advisable surfacing materials, and similar subjects. The extent of state supervision was enlarged in 1906, when the Legislature provided for the appointment of county highway commissioners to be under the immediate control of the state commissioner, and for the appropriation of $50,000 annually in addition to the small tax on the grand list. This was to be given in sums of not less than $100 nor more than $300 to towns duplicating the amount. Two years later the annual appropriation was increased to $75,000. By 1914, 200 miles of improved gravel roads had been constructed,[23] while in 1915 the state began to provide $15,000 annually to aid the towns in building better bridges on the main routes.[24]

The Legislature established patrol maintenance on its road system in 1912, the mileage cared for being steadily enlarged,

[20] *Ibid.*
[21] A tax of five cents on the grand list.
[22] *The Vermont of Today*, II, 606 *et seq.*
[23] "Good Roads: A Distinctive New England Asset," p. 3.
[24] *The Vermont of Today*, II, 697.

rising from 70 miles in 1913 to 2,232 in 1925. In 1917, that body approved and accepted the law providing for Federal aid on routes of major importance, and in 1921 it gave the supervision of highway expenditure to a State Highway Board composed of three members appointed by the Governor.[25]

To secure additional revenue, especially for highways of a permanent type such as cement or macadam, Vermont in 1923 passed a gasoline tax of one cent per gallon.[26] This was increased to two cents a gallon in 1925, three cents in 1927, and four cents in 1929. In 1927, the year of the devastating flood in northwestern New England, the Legislature authorized a special tax of seven and one-half cents on the grand list for highway and bridge replacement and improvement.[27]

The flood itself[28] quickened the movement for better bridges, as well as safer approaches to them, by washing away many a picturesque but antiquated covered structure built in the last century, and numerous iron bridges dating from the early part of this period.[29] In 1927, Vermont built 107 bridges, the majority of them after the downpour of November 3 and November 4 of that year. In 1928, 1,329 were constructed, most of them to replace those washed away by the flood, while in 1929, 201 more were built. In that year the state spent $4,050,000 on her roads, much of which went for permanent construction, although a good share was given to the towns to be expended in bettering the secondary roads.[30]

[25] *Ibid.*

[26] The first registration and drivers' fees were imposed in 1904, although no annual fees were required until 1908.—*Ibid.*

[27] *Ibid.*

[28] See below, pp. 356-57.

[29] Strange to say, a considerable number of covered wooden bridges, many of which appeared exceedingly unstable, withstood the ravages of the waters, while some recently finished cement structures were swept away. For example, at Richmond, Vt., 15 miles from Burlington, a large covered bridge over the Winooski River remained firm, although the road on each side was washed away, whereas in Randolph, in the center of the state, a new and costly cement bridge over a branch of the White River was entirely ruined.

[30] In 1929 there were 4,462 miles of road in Vermont designated as state aid

The improvement of the hill-country highway system during this period was an important factor in influencing greater numbers of vacationists to visit the region. No tourist wanted to bump over bad roads.

## Publicity

Another means of persuading prospective summer guests to come up into the mountains and lakes of northern New England was the systematic advertising of its natural attractions. Vermont led New England in this venture,[31] when, in 1911, the Bureau of Publicity of the Department of State issued a profusely illustrated booklet of eighty pages entitled *Vermont, Designed by the Creator for the Playground of the Continent.* (A detached observer might find calculating the number of parts of the United States which claimed in their advertising to be "The Playground of America" quite amusing.[32]) In the years following, the Vermont Legislature appropriated sums of money for publicity work averaging from $10,000 to $15,000 annually with larger amounts being voted in the twenties.[33]

Maine was the second in the field, starting in 1922 with a small appropriation which was rapidly enlarged. It was raised from $50,000 in 1927 to $100,000 in 1928; in 1929 the latter sum was again voted.[34] New Hampshire began advertising in 1925, when the Legislature set aside $25,000 annually for the following two years. An equal amount was furnished for state

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roads. (This figure included 1,043 miles which received Federal aid.) In addition, 10,120 miles of the secondary roads in the various towns were receiving some state aid.—*The Vermont of Today,* II, 698.

[31] Tuttle, "Advertising New Hampshire," p. 35.

[32] Slosson, *The Great Crusade and After,* p. 238.

[33] Tuttle, "Advertising New Hampshire," p. 35. For the year ending June 30, 1933, the Legislature voted $30,000 for the Bureau of Publicity.—Letter to writer from Harold Chadwick, Director, Vermont Publicity Bureau, dated July 16, 1933.

[34] Tuttle, "Advertising New Hampshire," p. 35; Committee on Recreational Resources of the New England Council, *Report,* p. 9. By 1927, all the New England states except Massachusetts and Connecticut had publicity bureaus.—*Ibid.*

publicity during the same period by a fund raised from private subscriptions by the New Hampshire State Chamber of Commerce.[35] In 1927 the State Publicity Department was given an appropriation by the Legislature of $35,000 a year for the next biennial period, but no other funds were available. In 1929 this amount was increased to $40,000.[36]

Most of the money raised for publicity was spent in advertising and in conducting an office to answer inquiries and send to prospects illustrated booklets glorifying the attractions of the respective states. The New Hampshire State Development Commission,[37] which in 1925 and 1926 used only newspapers in advertising, in 1927 took space in the *Literary Digest, National Geographic Magazine,* and *Outlook,* and in the "Where-to-Go" sections of the *Atlantic Monthly, Review of Reviews, World's Work, Scribner's, Harper's, Golden Book,* and *Country Life,* as well as in nine newspapers in Boston, New York, and Brooklyn.[38]

The booklets and pamphlets varied greatly in size and make-up, and touched on many points. In 1930 the Vermont Publicity Bureau sent to those writing for information a booklet, *Vermont Lakes and Mountains;* a pamphlet, *Bridle Paths in Vermont,* and an eighty-five page descriptive catalogue, *Vermont Farms and Summer Homes for Sale, 1930.* New Hampshire in the same year mailed to inquirers a pamphlet entitled *New Hampshire, Land of Splendor,* which was copiously illustrated, and a descriptive booklet, *New Hampshire by Motor.*

Devices more direct than advertising in newspapers and periodicals were also employed to attract summer visitors into the hill country. For instance, in 1926, the New Hampshire State Publicity Department conducted a "junket" about the

[35] Tuttle, "Advertising New Hampshire," p. 35.

[36] Tuttle, "There Is More Than One Kind of Publicity," p. 420. In the same year, Georgia set aside for publicity work the sum of $333,000, and Hawaii, $148,000.—*Ibid.*

[37] Formerly the State Publicity Bureau.

[38] Tuttle, "Advertising New Hampshire," p. 36.

state for a party of one hundred and twenty-five editors and editorial writers, in the hope that they would later on say a good word for the Granite State as the "Summer Playground of America." The members of the group, representing forty-four different states, were guests of New Hampshire for a week. The State Director of Publicity, who collected and pasted in a scrapbook the comments of the visitors, estimated that they would have cost $74,000 if paid for at regular advertising rates.[39]

### Growth

These varied and determined efforts to attract summer business to the hill country gave a decided impetus to its growth. A study of the statistics issued from time to time on the current situation of the industry shows how rapidly it developed and how great an importance it assumed in the economy of the region.

In 1873, the New Hampshire Board of Agriculture estimated, probably a little expansively, that the people of the state were receiving nearly $3,000,000 annually from summer guests, and that the railroads took in over $700,000 from this source,[40] while by 1891 it was declared that the summer vacationists were bringing in more than $5,000,000 a year.[41] In 1900, after an intensive survey by the state Bureau of Labor of the business for the previous summer, the total volume was given as $6,600,000.[42] The capital invested in summer property in New Hampshire at that time was announced to be almost $10,450,000. The summer guests at farmhouses, boarding houses, and hotels during 1899 numbered 154,000, and the

[39] Tuttle, "There Is More Than One Kind of Publicity," p. 420. For the transportation and entertainment of this group, $6,000 was appropriated from the State Chamber of Commerce Publicity Fund.—*Ibid.*

[40] New Hampshire Board of Agriculture report for 1873, p. 192.

[41] New Hampshire *Annual Reports*, 1891, II, 204, *Report of the Commissioner of Agriculture and Immigration.*

[42] This figure included the amount that was invested in summer property during the year.

persons occupying cottages for the summer only, 20,000, making an aggregate summer recreation population of 174,000—a total greater than one-third of the population of the state at that time.[43] The number of persons employed in this summer business, either in farmhouses, boarding houses, hotels, or summer cottages, amounted to more than 12,000, to whom wages of $540,000 were paid during the season. The cash received from the visitors totalled $4,950,000, not counting the $600,000 which was estimated to have been paid for railroad fares, the $63,000 receipts from stages used by summer people, and the $60,000 received by the lake steamers. The money invested in real estate for summer use only, such as cottages, hotels and other buildings and land, came to $940,000.[44]

In 1903, the secretary of the state Board of Agriculture declared in his report that over 2,000 summer homes had been established in New Hampshire, and more than $5,000,000 invested in improving abandoned farms and in the erection of new summer residences.[45] In 1911, the board reported that through its efforts a total of over 4,000 New Hampshire farms had been sold to summer residents.[46] By the end of the first decade of the century, it was estimated that more than 300,000 vacationists journeyed to the Granite State every summer to enjoy themselves,[47] and in 1916 it was declared that there were in the state 2,000 inns, large and small, catering to summer needs.[48]

The recreation industry in New Hampshire continued to grow by leaps and bounds. By 1924, more than 1,500,000 visitors were journeying to the state each summer and it was

[43] The population of New Hampshire in the Census of 1900 was 411,588.

[44] L. H. Carroll, "One State and the 'Summer People' Industry," p. 2383.

[45] New Hampshire *Annual Reports*, 1903-04, II, xxiii of the Report of the Secretary of the Board of Agriculture.

[46] Ogg, "The New England of Tomorrow," p. 93. In 1910, the census reported 27,054 farms in New Hampshire, occupied as farms.—Reports of the Fifteenth Census: *Agriculture*, bulletin for New Hampshire, second series of bulletins, p. 5.

[47] Baxter, "Golden New England," p. 179.

[48] Stackpole, *History of New Hampshire*, IV, 311.

conservatively estimated that this source yielded a revenue of $50,000,000 annually.[49] In the decade of the twenties more money was put into summer property in the state, until by 1929 the capital invested in this business, as represented by real estate and land holdings, was approximately $100,000,000 —over ten times the total announced for 1899. This amount comprised the assessed valuation of residences and land owned by people living outside the state and of non-residential property used for recreation, such as hotels, camps, golf courses, and the like.[50]

Although the summer industry never reached such heights in Vermont, its value to the state was realized from the beginning. "It is doubtful," observed one leader in 1894, "if any agricultural product, except the dairy production, is bringing as much money to the State at the present time as are our summer visitors."[51] A comparison of the status of the business in that year with the situation in 1929 and 1930 will indicate the extent of its growth. A rather cursory investigation made by the Vermont Board of Agriculture late in 1894[52] showed that during the preceding summer vacationists had left in the state $354,668 paid for board and rooms, and $39,239 for livery expenses. Since 54,236 guests were reported as having come

[49] Remick, "The Future of New Hampshire as the Switzerland of America," p. 300. The Chamber of Commerce of the state placed the amount at $75,000,000. —*Ibid.*

[50] Roadside Operators' Conference, March 25-26, 1931, *Proceedings*, p. 28. The combined assessed valuations within New Hampshire of the Boston and Maine Railroad, the Amoskeag Manufacturing Company, the Nashua Manufacturing Company, the Brown Company of Berlin, and the Public Service Corporation of New Hampshire barely equalled the $100,000,000 mark of residential and non-residential recreational property.—*Ibid.*

[51] Spear, *Report on Summer Travel for 1894*, p. 7.

[52] Inquiries were addressed to the postmasters in each town in the state, asking them to send in the names and addresses of each person in their respective towns who entertained summer guests that season. A little over 400 names were returned, to each of whom a circular letter was sent. Of the 300 replies received, only 227 stated that they had catered to summer visitors that season. The remainder had had guests, for the most part relatives and friends, who had come by invitation.—*Ibid.*, p. 4.

to Vermont that season, the average amount spent by each was $7.18. The statistical secretary who made the survey for the Board of Agriculture felt that in view of the incompleteness of the returns, he could properly estimate that "probably over $500,000 was taken in as total revenue for the three items of board, rooms and livery."[53]

In 1929, more than a million summer guests visited Vermont, a number almost three times the population of the state at that time. Three out of every four came from New York, Massachusetts, Connecticut, New Jersey, New Hampshire, or Pennsylvania. New York alone supplied over one-fourth of the total, and New York and Massachusetts together one-half. Almost all traveled by private automobiles, although some arrived by train and a few by bus.[54] Of the 1,240,000 people who crossed the Canadian border into Vermont during that year, 786,000 came in cars registered in Canada or in states other than Vermont. In addition to these almost 250,000 more tourists entered the state by way of the Lake Champlain ferries.[55]

From returns to a questionnaire sent out to a large number of people who had written the Vermont Bureau of Publicity for information about the recreational possibilities of the state, it was calculated that an average of $77.16 was spent by each vacationist in Vermont in 1928, and $60.00 in 1929. In 1930, the visitors felt the pinch of the times, the average expenditure dropping to $54.00.[56] This represented an enormous increase.

[53] *Ibid.*

[54] Report of the Vermont Publicity Bureau in the *Burlington Free Press*, Dec. 30, 1929, p. 2. In 1931, this Bureau sent out 1,800 questionnaires to people who had written it for information. Of the 666 people who answered, 472 reported that they had visited the state. Of these, 420 came by private automobile, 46 by railroad, 3 by bus, and 1 by airplane.—*Bethel Courier*, Jan. 21, 1932, p. 1.

[55] Report of the Vermont Publicity Bureau in the *Bethel Courier*, May 1, 1930.

[56] *Ibid.*, p. 1. The average expenditure dropped still further, down to $43.00 in 1931 and 1932.—Letter to the writer from Harold Chadwick, Director, Vermont Publicity Bureau, dated July 16, 1933.

however, over the $7.18 estimated as spent by the average summer guest in 1894.

By 1930, the amount of money invested in summer property in Vermont had reached an imposing total, even though it was hardly more than a quarter of the capital put into this kind of real estate in New Hampshire. In a careful survey made that year by the Committee on Summer Residents and Tourists of the Vermont Commission on Country Life, the value of property in the state used for summer resident and tourist purposes was conservatively appraised at $26,000,000, approximately four-fifths of which was held by out-of-state people. The appeal that the Green Mountain State had as a place to purchase a summer home increased the amount of this investment.[57] Not included in this figure were the two hundred and fifty all-year-round hotels which also catered to summer guests. There were few strictly summer resort hotels in Vermont, as compared to the number in New Hampshire.[58]

One of the important recreational developments in the hill country during this period was the expansion in the number of

[57] Two Hundred Vermonters, *Rural Vermont*, pp. 119-20. This information was secured by visits to the town and city clerks throughout the state; in their grand list books was found material as to the appraised value and type of property in their town. Local real-estate men, insurance agents, and other well-informed citizens were consulted for estimates of reasonable valuations of recreational properties.—*Ibid.* The trend toward increased investment in summer property became even more noticeable in the 3 years following 1930, when real-estate brokers reported that over $1,000,00 had been expended by non-residents in buying Vermont property.—Letter to the writer from Harold Chadwick, Director, Vermont Publicity Bureau, dated July 16, 1933.

[58] Because of the fact that so large a share of Maine's summer business was on the seacoast and not in the back-hill country, statistics for this state do not show the situation in the hill and lake regions. In 1909, the average yearly income for Maine from summer visitors and tourists was estimated at $25,000,000 and the total of summer property invested in the state, including summer hotels, was valued at about $31,000,000. In addition, there were a few clubhouses in wild-land townships, 105 sporting camps, and 27 camps owned by guides, whose total assessed valuation amounted to $667,960.—*Maine Agricultural Statistics, Resources, and Opportunities*, p. 23. By 1930 the summer-property investment in the state had swelled to a conservative estimate of $54,000,000, $35,000,000 of which was held by people from without the state.—Chidester, "The Importance of Recreation as a Land Use in New England," p. 204.

summer camps for boys and girls, most of whom came from outside of the region. The movement was started in New Hampshire in 1881, when the first organized summer camp in the United States was established for boys on Squam Lake in the northern part of the state.[59] In 1900 one for girls was founded on near-by Newfound Lake.[60] Except for a few enthusiasts the idea met with slow response, and by 1910 there were but half a dozen camps in the Granite State.[61] In the next two decades, however, their growth was rapid, reaching 130 in 1926 and 185 in 1929.[62] In Vermont, the first boys' camp was founded at Isle La Motte, Lake Champlain, in 1892; while the first for girls began in 1903 at Malletts Bay on the same lake.[63] By 1910 there were eight in the state, four for boys and four for girls.[64] Their numbers increased slowly up to the World War, but in the twenties they sprang up like mushrooms, especially during the boom years between 1925 and 1929. The state reported 48 camps in 1926, 75, with a total registration of 8,300, in 1929, and 80 in 1930.[65] Maine surpassed the other two northern New England states in this type of summer business. Her first camp was founded in 1894 on Allagash Lake; by 1926 she possessed 207; and by 1929, 230.[66] The value of these estab-

[59] *A Handbook of Summer Camps,* 1925 edition, p. 29. This was Camp Chocurua, owned by Ernest Balch. Two others had been founded earlier but neither had the features of the summer camp as we know it today. Dr. J. T. Rothrock's North Mountain School of Physical Culture, at North Mountain, Luzerne County, Pa., started in 1876, was for twenty sickly boys, and G. W. Hinckley's camp on Gardiner Island, Wakefield, R.I., established in 1880, was for but three boys.—*Ibid.,* 1920 edition, p. 143.

[60] Camp Redcroft at Hebron, N.H., the third of its kind. The first was Camp Arey, Arey, N.Y., 1892, and the second, Camp Altamont, in the Helderberg Mountains of New York.—*Ibid.,* 1925 edition, p. 32.

[61] Conlon, "Summer Camps in New Hampshire," p. 314.

[62] *A Handbook of Summer Camps,* 1926 edition, p. 40; 1929 edition, p. 46.

[63] *Ibid.,* 1925 edition, pp. 29-32. The boys' camp was St. Anne's, a Roman Catholic camp for boys from New York City; the girls' was Camp Barnard.

[64] *The Vermont of Today,* I, 282.

[65] *A Handbook of Summer Camps,* 1929 edition, pp. 46-47; *Vermont Year-Book and Guide, 1930-1931,* pp. 424-25.

[66] *A Handbook of Summer Camps,* 1925 edition, p. 32; Gerish, *The Com-*

lishments to the hill country was appreciable, for they brought money as well as people into the region. A gross income of over $1,000,000 for the season of 1926 was reported by 41 of Vermont's 48 camps; 96 of New Hampshire's 130 did a total business of $1,800,000 during the same year; and of Maine's 207 camps, the 153 reporting stated that they had taken in $2,600,000.[67]

### Effect upon the Hill Country

The question of the effect of the influx of summer people upon the New England hill country has been the subject of dispute ever since the visitors began to arrive in large numbers. Some writers maintained that their influence was deleterious; others that it was beneficial. Few regarded the question from a point of view broad enough to see that the invasion had both good and bad results. It is correct to state at the outset, however, that the good effects generally outweighed the bad. Nevertheless, in order to present as complete a picture as possible, the harmful influences of the summer immigration must be fully considered.

In 1900, the Chief of the Division of Soils of the Federal Department of Agriculture admitted to the United States Industrial Commission that while the summer visitors had been a benefit to the New England states in the main, at the same time, they had "had a demoralizing effect upon the agriculture of the region."[68] Others agreed with this opinion. It was felt that the vacationists created an abnormal demand in July and August rather than a steady twelve-months-a-year market. It was pointed out that the farmers who took in boarders fre-

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*mercial Structure of New England*, p. 236; *A Handbook of Summer Camps*, 1929 edition, pp. 46-47.

[67] Gerish, *The Commercial Structure of New England*, p. 236.

[68] Testimony of Milton Whitney, Chief of the Division of Soils, U. S. Department of Agriculture, in U. S. Industrial Commission, *Report*, Vol. X, Part 2, p. 866.

quently spent valuable time driving them around during two of the most important farming months of the year, and thus lost more by the end of the year than they gained from the immediate returns of the livery money.[69]

The summer residents whose land no longer served in its former capacity, but lay uncultivated, were considered to have harmed the community by causing a drop in the town's farm production and a decline of interest in agricultural affairs.[70] Moreover, these newcomers were wont to raise the wages and shorten the hours of the hired help, at the expense of the full-time farmers in the vicinity. Finally, it was even stated that the alleged expenditure of the summer guests, whether boarders, tourists, or residents, was largely money that was spent in unproductive ways, or that went out of the hill country.[71]

The seasonal movement of city dwellers into the country was often far from pleasing to the inhabitants. Because certain of the visitors kept aloof from the native population and failed to support local interests, some critics argued that the summer visitors as a class were contributing nothing to the permanent social, educational, and religious life of northern New England, and were setting examples of extravagance which tended to create unrest among the farmers' sons and daughters.[72] In cases where the scale of living of the guests was only slightly higher than that of the rural people, such discontent might be a wholesome spur, but very often the newcomers lived upon such unapproachable levels that they brought only a fruitless repining.[73]

The departure of the vacationists in the autumn seemed to some to make the winter stand out in greater contrast with the summer and to heighten the feeling of loneliness.[74] An author-

[69] A. H. Gleason, "What New Hampshire Can Do," p. 76.
[70] *Ibid.;* Stackpole, *History of New Hampshire,* IV, 311.
[71] A. H. Gleason, "What New Hampshire Can Do," p. 76.
[72] Holmes, "The Movement from City and Town to Farms," p. 268.
[73] Stevens, "New England Brings Some Ghosts Back to Life," p. 108.
[74] Leonard and Seward, *History of Dublin, New Hampshire,* p. 614.

ess, a year-round resident of Dorset, Vermont, considered that although the reoccupation of abandoned farmhouses was advantageous to a community, the building of so many new houses —cottages, shacks, bungalows—was regrettable. The deserted farms were sore spots in any neighborhood, and it was much better to have them occupied for a quarter of a year than not at all; but the new structures, forbiddingly closed and shuttered during most of the year, seemed to add unnecessarily to the isolation of the winter months. "Where no house has ever stood," she wrote, "there the stars and the friendly moon suffice, but where a human habitation rears a blind and deserted bulk, the passer-by shivers and hastens his steps."[75]

There is, however, convincing evidence of the beneficial influence of the summer industry on northern New England, which more than balances these unfavorable impressions. The summer visitors had a very enlivening effect upon all the hill country. The arrival of city boarders at a farmhouse led in nearly every case to almost immediate improvements in the house and its surroundings. The wagon received a coat of paint, the team was better groomed, weeds and brush beside the highway were cut down, the front fence was fixed up, and loose ends were picked up all about the place.[76] A little later, perhaps, the house was painted, and the interior papered and repaired. The hill village was likewise renovated. Sidewalks were built and street lamps erected, the common was neatly kept, and hedges and flower beds began to decorate the lawns.[77] Without doubt, the great improvement in appearance exhibited by both country and village homes during this period was to a considerable extent due to the advent of summer guests.

If a few of the smarter summer colonies tended to keep aloof from any contact with the natives, there were a thousand and one farm neighborhoods and village communities in the hill

[75] Humphrey, "The New Crop," pp. 380-81.
[76] C. N. Hall, "Country Towns in New England," p. 54.
[77] Hartt, "A New England Hill Town," p. 719.

country where true friendships were formed between the summer residents and the local people. Moreover, the tourists who were motoring in greater numbers through the area also provided contacts of social and educational value.[78] Families which could not afford to pay the rate charged by hotels patronized the farm and village homes, or the neat and comfortable cabins nearby. Those who entertained them spoke most favorably of their visits. Everyone enjoyed seeing new faces and hearing stories of travel; some farm homes reported that they received helpful ideas from visiting farmers from other states, and that catering to tourists afforded an agreeable break in the monotony of farm work; others said that sometimes their guests wrote to them in the winter, and pleasant acquaintanceships thus burgeoned into friendships.[79] As one country editor expressed it at the beginning of the vacation season, "The prospective crop of summer tourists and summer campers . . . will cherk everybody up a bit. We need their presence as well as their dollars. They brighten up the scenery."[80]

The economic effects of the summer influx were even more widespread and important than the social results. The dollars spent by the city people during the summer season touched a wider circle of individuals than those who came into direct contact with the visitors themselves. The guests at farmhouses and hotels as well as the owners of summer homes left a large amount of money in the neighborhood. They purchased goods at the village stores,[81] and bought maple sugar and syrup, butter, milk, vegetables, potatoes, and apples from the farmers, sometimes arranging for their winter supplies. Women who

[78] Preliminary Report of the Committee on Summer Residents and Tourists in the Vermont Commission on Country Life *News Letter*, December, 1929.

[79] Two Hundred Vermonters, *Rural Vermont*, pp. 124-25.

[80] Editorial by L. B. Johnson in the *Bethel Courier*, July 2, 1931, p. 2.

[81] By the twenties these country stores, little more than neighborhood post-offices during the winter, often carried a large and elaborate stock of groceries from late June until mid-September.—Goldthwait, "A Town That Has Gone Downhill," p. 539.

lived nearby were hired to help cook, wait on table, and do chamber work. Additional opportunities for work were offered people who acted as caretakers and gardeners, and to carpenters, mechanics, masons, painters, and laboring men in the locality. Materials were bought of mill owners, brick kilns, and quarrymen.[82] A considerable amount of this employment lasted for longer than the eight or ten weeks of the season, for during the spring months there was much to be done in preparing for the arrival of the vacationists, and in the fall the buildings and equipment had to be repaired and everything closed for the winter.[83]

The coming of hundreds of girls and boys from the cities of southern New England and other Eastern centers of population to the camps of northern New England was also salutary for the country-side. Although the camp directors made many of their purchases of supplies from wholesale houses in the cities, a good portion of what they spent stayed in the region. A survey of the expenditures of summer hotels and camps made in the late twenties showed that an average of 28 percent of their gross receipts went back into the communities in which they were located in the form of pay rolls alone. Moreover, the presence of the campers attracted other people into the hill country, for their parents and friends came to visit them and stayed in nearby farmhouses and hotels.[84]

The tourists likewise provided employment for local people other than those who furnished their sleeping accommodations. Restaurants, tea rooms, and drug stores augmented their help during the summer months, often hiring high-school and college students. Dealers in automobile accessories, tires, and

[82] Spear, *Report on Summer Travel for 1894*, p. 7; Goldthwait, "A Town That Has Gone Downhill," p. 539.

[83] Preliminary Report of the Committee on Land Utilization in the Vermont Commission on Country Life *News Letter*, December, 1929.

[84] Gerish, *The Commercial Structure of New England*, p. 234. The survey was made by the Committee on Recreational Resources of the New England Council.

gasoline increased their sales. Finally, the many roadside stands, often operated by farmers' wives, took in considerable sums in sales of candy, soft drinks, ice cream, fruit, and the like.[85]

A further economic advantage derived from the summer industry was the increase in the value of taxable property in many hill towns where the total value of farm property had been declining for a number of years. In some of these towns, a considerable part of the taxes was paid by summer residents. Fairlee, in central Vermont, is an interesting example of this development. In 1900 summer residents owned but a small proportion of the town's total assessable real estate; three decades later they had invested $600,000 and paid almost half the taxes in the town.[86]

In New Hampshire a similar situation existed: for example, in Sandwich, a town with a population in 1930 of 731, located twelve miles north of Lake Winnepesaukee in a mountainous country with several lakes. In this town 128 places were used for recreational purposes in 1932, of which 112 were occupied by the owners, 7 were rented to summer visitors, and 9 were boarding houses and hotels. The vacationists left over $75,000 annually in the town for maintenance costs, not including the capital expenditures made each year in structural improvements on the property of non-residents. Most significant was

[85] Two Hundred Vermonters, *Rural Vermont*, p. 127. In 1929, the roadside stands in New Hampshire represented a $1,000,000 business, averaging about $1,800 gross receipts each year. Five stands were found that did a business of $10,000 each.—*Boston Transcript*, Nov. 22, 1929.

[86] Preliminary Report of the Committee on Summer Residents and Tourists in the Vermont Commission on Country Life *News Letter*, December, 1929. The property value of the summer homes and hotels in fashionable Manchester, Vt., amounted in 1929 to nearly $3,000,000, and their value in Orleans County, in northern Vermont, approached a similar figure.—*Bethel Courier*, May 5, 1930, p. 1.

In Greensboro, in the northern part of the state, the summer residents in the 175 cottages on its Caspian Lake paid in 1929 more than 23 percent of the real-estate tax and 18 percent of the taxes of the whole town, although they occupied but a small percentage of the land.—*The Vermont of Today*, II, 741.

the effect on the public treasury of Sandwich. The 128 vacation sites bore 40 percent of the whole tax assessment of the town and yet occupied but 16 percent of the total area.[87]

Although all the towns in the hill country did not show so large an increase in the value of summer property, the totals for Vermont and New Hampshire were impressive. In 1928, a survey of property in Vermont held by out-of-state persons revealed that it was assessed on the tax lists at more than $20,000,000,[88] and in 1929 it was estimated that over $25,000,000 was invested in New Hampshire in houses and land owned by non-residents, not including summer hotels. Taxes paid in the same year in the latter state on recreational property, including camps, private summer homes, golf courses, and summer hotels amounted to $2,900,000. This constituted one-sixth the state's income from taxes.[89]

Nevertheless, the benefits derived from the summer industry were not enjoyed by all the hill country. The advent of the summer residents was more of a boon to the people in and near the country villages than to the isolated hill farmers. The tourists followed the paved routes along the valleys, and only the farmers on these main highways could cater to their many needs. This made the farms situated in the valleys beside well-traveled routes seem more attractive than ever in comparison with the ones located far up in the hills.[90] Nevertheless, the hill farms whose pastures were not too rough and which had an adequate amount of fairly fertile tillage land were not in such a serious economic plight as this would suggest, for there occurred during this period a development which

[87] Francis, The Recreational Industry in Sandwich, New Hampshire.

[88] *Bethel Courier*, March 29, 1928, p. 2.

[89] *Boston Herald*, Dec. 23, 1929; *ibid.*, July 28, 1930, p. 10; Roadside Operators' Conference, March 25-26, 1931, *Proceedings*, p. 28.

[90] It was this condition which influenced a farmer's widow, an acquaintance of the writer, to move her family off a hill farm in central Vermont, to a small place on a well-traveled highway, where she was able to gain a livelihood from a roadside stand and a gasoline-filling station.

gave the farms off the main route, as well as those on the paved highways, a cash crop of sufficient magnitude to make farming still worthwhile. The story of the increase in the demand for fresh milk to supply the growing cities of southern New England and New York, and the consequent extension of the city milksheds into the New England hill country deserves special consideration.

# XV

## THE EVOLUTION OF THE DAIRY INDUSTRY

*The farmers are neither building fences nor houses, nor painting their buildings, or doing anything except buying a few cows and shipping their milk to Boston.*[1]

THE greatest single factor in the successful maintenance of agriculture in the New England hill country during the first three decades of the twentieth century was the growth of the market for milk and cream in near-by cities. Northern New England was favored by nature to be the source of quickly perishable dairy supplies for the urban population of southern New England and even portions of metropolitan New York. It was sparsely populated, containing an average of 30 people to the square mile, while in southern New England an average of 383 people were crowded into the same area.[2] Moreover, the climate was well adapted to this type of production. The lands were well watered and the pastures, once closely cropped by sheep, offered good grass. Although grain had to be imported from the West, the meadows produced plenty of hay to feed the cows in winter and the cornfields enough corn to fill the silos.[3]

The continued abandonment of rough and isolated submar-

[1] George W. Perry as quoted in Vermont Department of Agriculture report for 1910 (Report of the Vermont State Horticultural Society, p. 97).

[2] Vermont Department of Agriculture report for 1920-22 (Report of the Vermont State Dairymen's Association, p. 31). Southern New England includes Massachusetts, Rhode Island, and Connecticut. Except for the urban area around New York, this was the most densely populated section of the United States. —*Ibid.*

[3] *The Food Supply of New England*, p. 20. By the beginning of the third decade of the century, five-sixths of the total improved area on New England farms was devoted in one way or another to the support of the dairy industry.—*Ibid.*

ginal farms, combined with increasing competition from the West in the production of butter and cheese,[4] led to a decided drop in the total amount of milk produced in the first decade of this period. Vermont's output of 142,000,000 gallons of milk in 1899 fell to 122,000,000 in 1909, while the New Hampshire returns shrank from 60,0000,000 to 44,000,000 gallons. But as the city milk dealers went further into the hill country for their supplies, more and more farmers found it possible to sell their dairy production in fluid form, and as a result the yield gradually increased until in Vermont, where the industry reached its greatest importance, the figure for 1929 closely approached that for 1899. New Hampshire, which was not so well adapted naturally to dairying, showed a steady decrease until the middle twenties, after which there occurred a slight rise. In 1929, her production amounted to a little over one quarter of the return for Vermont, while the yield for Maine in that year was slightly over one-half that of Vermont.[5]

## The Extension of the City Milksheds into the Hill Country

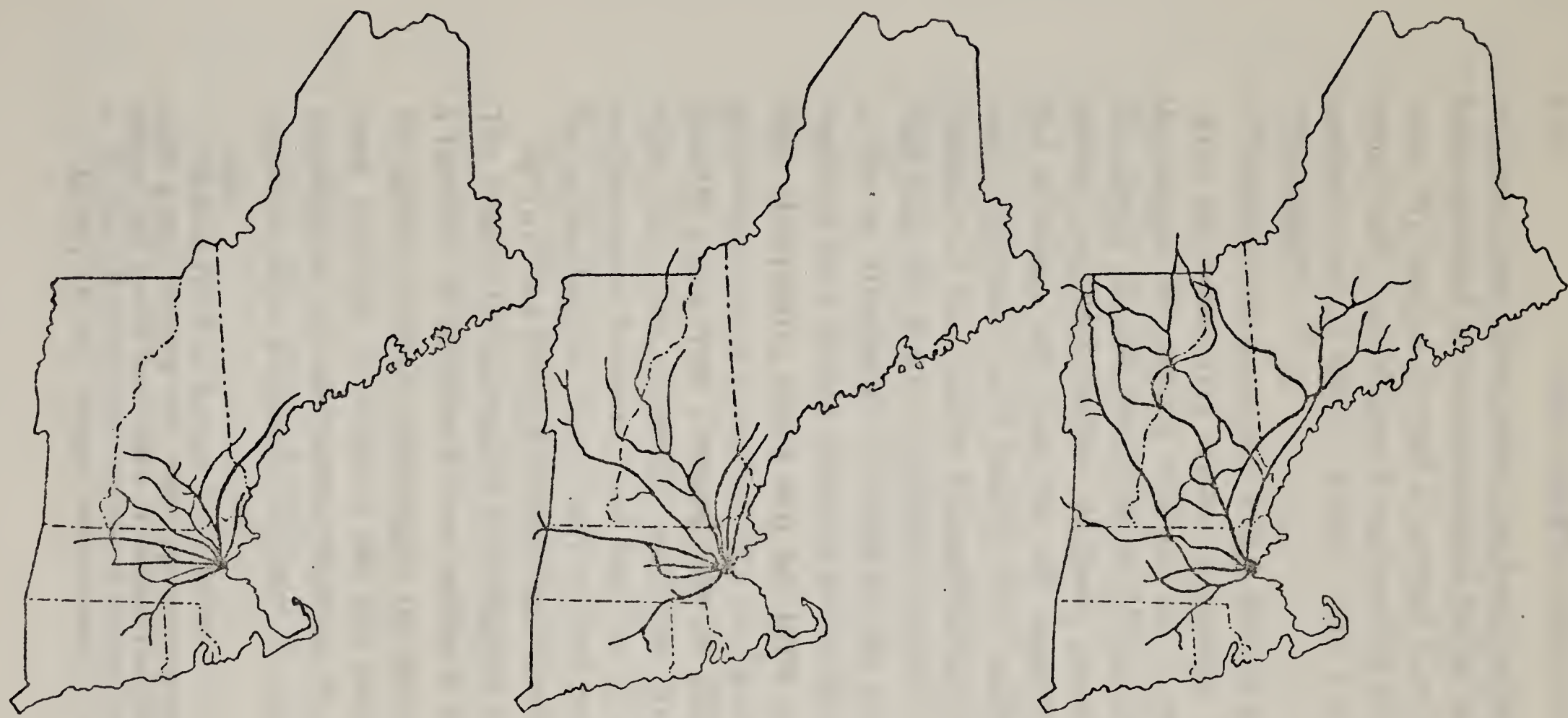
It was not until after the turn of the century that the Boston milkshed[6] penetrated very deeply into northern New England. The amount of milk produced in the area immediately around Boston was then decreasing, for as the agricultural land nearby increased in value, it became more profitable to devote it to market gardening than to dairying.[7] As a result, the territory exporting milk into the metropolitan district was enlarged. In 1900 the greater portion of Boston's milk was coming from within Massachusetts, although several sections of

[4] The West, with its cheaper grain, was at a great advantage in the production of these easily transported commodities.

[5] See Appendix 3, Table III, for amount of milk produced on Vermont and New Hampshire farms between 1899 and 1929.

[6] See above, p. 10, note 17, for definition of milkshed.

[7] G. M. Whitaker, *The Milk Supply of Boston, New York, and Philadelphia*, p. 8.




SOURCES OF MILK SHIPPED BY RAIL TO THE BOSTON MARKET, 1900-1920

In 1900 most shipments came from Massachusetts and southern New Hampshire, but in 1910 Vermont and Canada were beginning to be important as sources of milk shipments. By 1920 milk was coming to Boston from all over Vermont, and shipments from Maine had increased.

Data, furnished by the New England Milk Producers' Association, from McFall, *The New England Dairy Market*, p. 16.

southern New Hampshire had been tapped and two lines had been extended into southwestern Maine and two touched Vermont. By 1905 a portion of central New Hampshire was supplying milk, and Vermont was sending milk from six shipping stations, one of which, Bristol, was 213 miles northwest of "The Hub."[8]

The maps on page 303, which picture the situation in 1900, 1910, and 1920, give a good conception of this expansion of the sources of railroad milk for the Boston market. By 1910 the supply of milk produced in Massachusetts for the metropolitan area had further declined, partly because of the influx of cheap milk from the hill country, and partly because many dairymen were finding their market in the expanding demands of the smaller Massachusetts cities.[9] As a result, in that year the Boston milkshed reached into central Vermont as far as Montpelier Junction on the Central Vermont Railroad and New Haven Junction on the Rutland, while northern New Hampshire, which had not been touched by any milk-gathering route in 1900, was now cut by two, one of which went directly north from Concord into the White Mountain region, while the other proceeded northwest from Concord, through northwestern Vermont, and into the Province of Quebec as fas as Sherbrooke. There were no new developments in Maine.

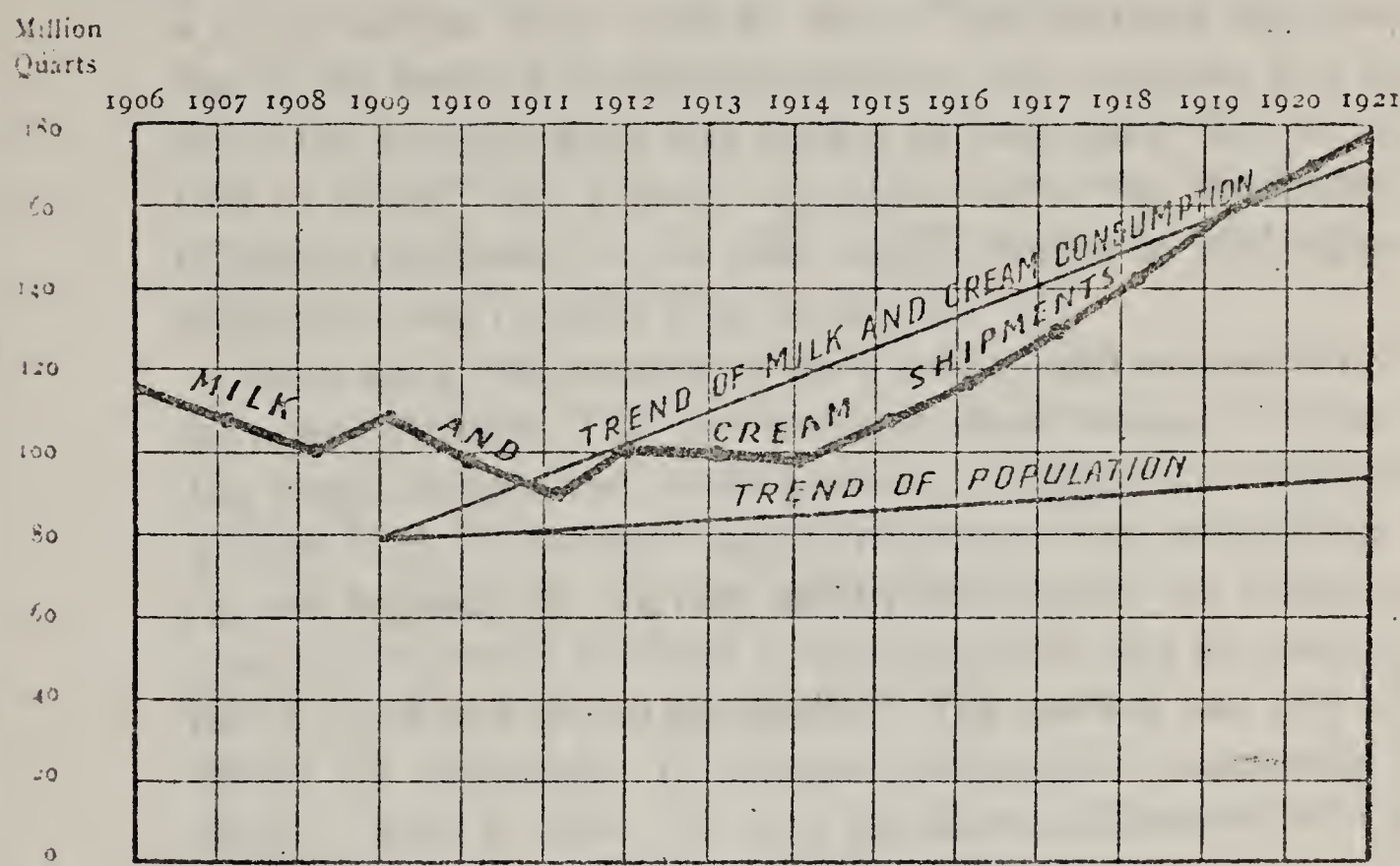
By 1920 the network of milk routes had widened still further. The constantly increasing consumption of milk, coupled with a decrease in shipments from southern New Hampshire[10] and the greater natural advantages for dairying obtaining in the more northern portions of the hill country, resulted in the ramification of the routes through the remoter portions of northern New England. Whereas in 1910 distant milk ship-

[8] *Ibid.*

[9] McFall, *The New England Dairy Market*, p. 18. In 1906, the first year in which accurate records were kept, 114,000,000 quarts of milk and cream were shipped into Boston by railroad.—Carrigan, The Effect of Extension Education on the Seasonal Surplus Milk Problem in Addison County, Vermont, p. 13.

[10] McFall, *The New England Dairy Market*, p. 18.

ments had been made chiefly from points on the main railroad lines, by 1920 shipping stations had been opened on branch lines and trucks were hauling milk to them from distant farms. Vermont was now covered with lines which extended even into Quebec and northeastern New York, while a much larger part of southern Maine was sending daily supplies. In New Hampshire, the chief change was the advance northward of the milk-




MILK AND CREAM SHIPMENTS INTO BOSTON BY RAILROAD, 1906-21

In 1906 (the first year in which accurate records were kept), the shipments amounted to 114,000,000 quarts of milk and cream; in 1921, shipments amounted to 169,400,000 quarts.

Data from the *New England Homestead,* Vol. LXXX, No. 20 (May 20, 1922), p. 3.

shipping station. The seventeen stations in the northern half of the state in 1904 had increased to forty-six by 1917, while those in the southwestern corner of the state had dropped from fourteen to three.[11]

[11] In 1917, fourteen milk cars were operating through New Hampshire to points in Massachusetts, all but two of which started in that state.—L. M. Davis, *A Survey of Dairy Marketing Conditions and Methods in New Hampshire,* p. 16.

The extension of milk-gathering routes into northern New England was in large measure the result of an increased demand for that commodity in the metropolitan area of Boston. This development is shown clearly in the graph on page 305 which pictures the trend of milk consumption in this region as compared with the trend of population. A fluctuation is noticeable in the amount of milk used between 1906 and 1914, with a sharp decline from 1909 to 1911. This decrease was partly due to the lowered purchasing power of the consumer in a time when the average wage was failing to keep pace with a rising cost of living,[12] but a more important factor was the lessening of public confidence in the milk supply caused by outbreaks of diphtheria and typhoid fever in Boston.[13]

After 1914, the amount of milk sold in and around this city increased steadily. This was brought about in some measure by the larger demands of a still growing population, coupled with greater faith in the milk supply resulting from restrictions for its sale imposed by the city health authorities, the inspections made by the states in which it was produced, and the classification of milk and cream by grades.[14] The market was also stimulated by campaigns to educate Bostonians concerning the dietary value of milk. In 1915 the Boston Chamber of Com-

[12] McFall, *The New England Dairy Market*, p. 4.

[13] *New England Homestead*, Vol. LXXX, No. 20 (May 20, 1922), pp. 3-4. In all probability there was real reason for popular distrust of the sanitary condition of milk. Pasteurization was far from universal, and the methods used in handling milk on many farms left much to be desired. Nevertheless, all the blame for unclean milk could not be laid upon the producers. In many cases polluted milk was the result of unnecessary carelessness on the part of the distributors. Sale in bulk was permitted, and frequently it was allowed to stand unstoppered outside the ice chest, surrounded by an open pickle barrel, piles of vegetables, and waste materials. The small stores were often dirty, and the proprietors slack. "Yet the members of the Massachusetts Consumers' League," complained the *New England Homestead* in 1911, "would have us believe farmers are to blame for the dead babies through contaminated milk supplies in Boston."—*New England Homestead*, Vol. LXII, No. 7 (Feb. 18, 1911), p. 2.

[14] Boston Chamber of Commerce, *Investigation and Analysis of the Production of Milk and Cream in New England*, p. 4; McFall, *The New England Dairy Market*, p. 4.

merce recommended advertising the food properties of milk and its derivatives,[15] and a beginning in this direction was made under the auspices of the National Dairy Council. The hill-country producers, gradually realizing that an enlarged consumption meant better sales for them, coöperated in June, 1918, with the Boston milk dealers in raising a fund of $10,000 to be used in advertising.[16]

The response to this campaign was such that the members of the New England Milk Producers' Association voted at their annual meeting in February, 1919, to authorize the Boston distributors to take three-fourths of a cent per hundredweight from the farmers' checks for advertising purposes, provided they were willing to contribute an equal amount. A campaign was thereby inaugurated which had at its disposal between $50,000 and $60,000.[17] The Boston Chamber of Commerce acted as treasurer. A large amount of newspaper advertising was purchased; streetcars were placarded with "Use More Milk" signs; dietitians went into schools, workshops, mothers' clubs, and stores with their messages.[18] An increased sale of milk to schools, stores, and factories was noted as a result of these efforts. Many principals arranged to furnish milk at cost to the children. Gilchrist's Department Store, which had hitherto bought only 70 bottles a day for its workers, began to take 300, while the R. H. White Company increased its order from 40 to 160 bottles a day, and the employees at the United Drug Company factory raised the amount of milk they took fourfold in one month.[19] By 1922, Boston was far in the lead

[15] Weyburn, *The Importance of the Dairy Industry to the Citizenship of New England*, pp. 13-15.

[16] *New England Homestead*, Vol. LXXIX, No. 6 (Aug. 9, 1919), p. 3.

[17] *Ibid.*

[18] Vermont Department of Agriculture report for 1918-20 (Report of the Vermont State Dairymen's Association, p. 92.) It was estimated that a total of 179,000 people heard the 619 talks on the subject given from June to December, 1919, that 124,000 school children were taught the value of milk, and that 571,000 people were reached by the posters and publicity circulars—*Ibid.*

[19] *Ibid.*, p. 93.

of cities in other sections of the country in the per capita consumption of milk, and in the use of butter and cheese as well. In fact, the figures for other New England cities were for the most part higher than those for other parts of the United States.[20] Shipments of milk and cream into Boston continued to grow through the twenties. In 1921, 151,000,000 quarts of milk were sent into "The Hub"; in 1924 this had risen to almost 173,000,000 quarts, and in 1927 to over 189,000,000,[21] while by 1930 it mounted to 207,000,000.[22]

Another factor which facilitated the northward extension of the Boston milkshed was the evolution of the large city milk dealer. In the fifties and sixties there were more than 1,500 dealers distributing milk in Boston, each with a limited pa-

[20] The following table, from the *New England Dairyman*, March, 1923, p. 15, as quoted in McFall, *The New England Dairy Market*, p. 102, indicates the comparative position of several representative cities of the country in regard to the average amount of milk used daily by their citizens in 1922:

PER CAPITA DAILY MILK CONSUMPTION IN QUARTS, 1922

| | | | |
|---|---|---|---|
| Concord, N.H. | .585 | Chicago, Ill. | .350 |
| Hartford, Conn. | .520 | Minneapolis, Minn. | .350 |
| Boston, Mass. | .505 | Rochester, N.Y. | .350 |
| Los Angeles, Calif. | .485 | Kansas City, Mo. | .340 |
| Denver, Colo. | .465 | Philadelphia, Pa. | .330 |
| Portland, Oreg. | .430 | Washington, D.C. | .305 |
| Portland, Me. | .425 | Salt Lake City, Utah | .200 |
| Milwaukee, Wis. | .425 | San Francisco, Calif. | .265 |
| Omaha, Neb. | .420 | Fort Worth, Tex. | .265 |
| Detroit, Mich. | .420 | Louisville, Ky. | .225 |
| New York, N.Y. | .350 | Columbia, S.C. | .200 |

[21] Vermont Department of Agriculture report for 1922-24, p. 60. In the same period the shipments of cream grew from 18,353,000 quarts to 23,975,000 quarts, a rise of about 31 per cent.—Carrigan, The Effect of Extension Education on the Seasonal Surplus Milk Problem in Addison County, Vermont, p. 19.

New York City, which tapped a considerable portion of western Vermont for a part of its milk supplies during this period, also increased its consumption. Receipts of milk in New York grew from 7,997,000 forty-quart cans in 1896 to 32,271,000 cans in 1927, a rise of 304 percent in 32 years, while in the same period the shipments of cream and condensed milk mounted from 200,000 forty-quart cans to 2,068,000 cans, an increase of 591 percent.—Carrigan, The Effect of Extension Education on the Seasonal Surplus Milk Problem in Addison County, Vermont, p. 13.

[22] Aplin, *Milk Marketing in the Boston Milk-Shed*, p. 2.

tronage. In 1884 the business was in the hands of 700 peddlers or licensed wagon dealers, few of whom operated more than one wagon. As the city expanded, some of these dealers confined their activities to operations in the country, selling their milk to the city peddlers. After a while they became known as contractors, who bargained with the farmers for their supply and with the peddlers for a market. Toward the end of the nineteenth century, the large contractors began to turn their attention to the delivery of milk direct to the consumers. They acquired retail routes, and built up new plants, equipment, and personnel. By consolidation, the big dealers grew more powerful and, with greater capital and a larger market, extended their sources of supply farther into the hill country, establishing their own milk receiving stations on the railroad lines. The 700 licensed dealers who supplied Boston's milk in 1884 declined to 205 in 1914, and to 131 by 1923.[23] The control of the Boston milk trade by a few large firms made it possible for the former to drive closer bargains.

As the farmers of northern New England turned their efforts to the production of milk for city markets, there occurred a decided decline in the production of butter and cheese. A Federal investigator of Boston's milk supply predicted this change in 1905, when he prophesied that the market-milk business would lead to the abandonment of butter-and-cheese factories, in order that the milk formerly used in their manufacture might be sold in fluid form.[24] The hill-country husbandmen were eager to sell their production in the new way, because the price obtained for fluid milk was much better than that paid for the milk used in the making of butter and cheese.[25] The total

[23] McFall, *The New England Dairy Market*, pp. 24-25.

[24] G. M. Whitaker, "Opportunities for Dairying in New England," p. 411.

[25] *Bethel Courier*, July 23, 1931, p. 2. This shift involved many changes, including the building of milk houses on the farms, the remodeling of stables and equipment to meet sanitary requirements, the establishment of milk shipping stations along the railroad lines, the development of transportation facilities, the raising of calves without skim milk, and the passing of the hog business.—

amount of butter produced in Vermont decreased from 41,000,000 pounds in 1899 to 35,000,000 in 1909, and to 17,000,000 in 1919. The output in New Hampshire fell from 11,000,000 pounds in 1899 to 7,000,000 in 1909 and to 4,000,000 in 1919, while Maine's production during the same period diminished from 21,000,000 pounds in 1899 to 16,000,000 pounds in 1909, and to 12,000,000 in 1919. The amount of cheese reported varied somewhat. Vermont, which in 1899 manufactured 5,000,000 pounds, made only 3,000,000 in 1909, but the production for 1919 rose to 5,000,000 pounds. New Hampshire returned 220,000 pounds for 1899 and 370,000 for 1909, while Maine showed a total of 980,000 pounds for 1899 and 170,000 for 1909. No returns were given for the cheese made in factories in New Hampshire and Maine in 1919, "As to do so," explained the census of 1920. "would disclose individual operations." The yield from the New Hampshire farms for that year was 32,000 pounds and from Maine, 55,000 pounds.[26]

Under these circumstances the number of butter-and-cheese factories in northern New England decreased. In 1900 New Hampshire had 24 creameries and Vermont 240, all of which sent their output to market as butter or cheese. By 1915, from 60 to 75 percent of these were owned by eight or ten metropolitan milk dealers who sent the greater part of their purchases to the city as whole milk or cream. Only the surplus milk, produced for the most part in the early summer was used for the making of butter and cheese. Similarly, Maine in 1900 had 72 creameries which sold only butter and cheese, while in 1915 55 of these were owned by four metropolitan milk companies which shipped the greater part of their product

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Carrigan, The Effect of Extension Education on the Seasonal Surplus Milk Problem in Addison County, Vermont, p. 80.

[26] Reports of the Fourteenth Census, Vol. V: *Agriculture*, pp. 663-64. These figures include the butter made both on farms and in factories. See Appendix 3, Table III, for exact numbers.

in fluid form and made butter only in the summer.[27]

The rise in the production of fluid milk was especially marked in the western and northern counties of Vermont, and


MILK SALES FROM FARMS IN NORTHERN NEW ENGLAND BY COUNTIES, 1909 AND 1919

Data from McFall, *The New England Dairy Market*, p. 8.

in those of northern New Hampshire and southwestern Maine. The increase in the farm milk sales between 1909 and 1919

[27] Boston Chamber of Commerce, *Investigation and Analysis of the Production of Milk and Cream in New England*, p. 7. In 1900 about 30 of Vermont's 240 creameries were cheese factories.—*Ibid.*

is shown impressively in the map on page 311.[28] Besides the decline in the southern counties of New Hampshire, it will be noticed that the two southernmost Vermont counties showed a loss. In spite of this, the growth in the sales from the remainder of the state was so large that the total amount sold from Vermont farms increased 62 percent in this decade.[29]

Although by the third decade of the century dairying was more important in New Hampshire and western Maine than any other phase of agriculture, it was in Vermont that it reached its highest development. A greater proportion of the inhabitants of Vermont, than of any other state in the country, depended upon this industry. In 1919 Vermont led all the United States with $77.20 worth of dairy products per capita. Wisconsin was second with $68.00 per capita, and Minnesota third with $32.00, while Maine showed a per capita yield of $23.14 and New Hampshire one of $23.07.[30] In the same year, only one other state, Wisconsin, had more cows per farm than Vermont. Wisconsin averaged 13.6 cows per farm; Vermont, 11.5; New Hampshire, 6.0; and Maine, 4.5.[31] By the early twenties Vermont was in the unique position of being the only state in the Union in which the number of cattle was larger than the number of people, and its cattle were for the most part dairy animals.[32] At this time 50 percent of the milk and 62 percent of the cream shipped to the Boston market from the New England states came from Vermont, which also produced 62 percent of the butter, 81 percent of the cheese, and 82 percent of the condensed milk manufactured in New England.[33]

[28] Practically all of this increase went to southern New England in the form of milk.

[29] J. Russell Smith, *North America*, p. 52.

[30] The per capita production in Connecticut was $10.80; in Massachusetts, $6.42; and in Rhode Island, $6.33.—*Ibid.*

[31] Vermont Department of Agriculture report for 1924-26 (Report of the State Dairymen's Association, p. 33). In the same year, Massachusetts averaged 6.5 cows per farm; Rhode Island, 7.0; and Connecticut, 6.4.—*Ibid.*

[32] Jones, "Report of the Commissioner of Agriculture," p. 6.

[33] Vermont Department of Agriculture report for 1920-22, p. 31. The im-

The increasing sale of Vermont milk and cream was secured in some degree at the expense of the rest of the hill country. Between 1921 and 1924, for example, the milk sent from Vermont to the southern New England market rose from 64,400,000 quarts to 93,400,000, but New Hampshire's decreased from 17,800,000 to 13,700,000, and Maine's from 21,700,000 to 15,800,000 quarts.[31] In Maine a similar tendency prevailed in the later twenties, her exports falling from 15,000,000 quarts in 1925 to 12,000,000 in 1928, and down to 10,000,000 in 1930. New Hampshire's shipments to the same market declined from 13,000,000 quarts in 1925 to 10,000,000 in 1928, but jumped to 17,000,000 in 1929 and to 24,000,000 in 1930. Vermont's consignments steadily increased, from

portance of Vermont in comparison with surrounding territory in the exportation of milk and cream to the Boston market is also shown in the following table, which gives the amounts handled by main railroads leading into the city in 1923:

MILK AND CREAM SHIPMENTS TO BOSTON HANDLED BY THE BOSTON AND ALBANY, THE BOSTON AND MAINE, AND THE NEW YORK, NEW HAVEN AND HARTFORD RAILROADS DURING THE YEAR 1923 (IN QUARTS)

| State of Origin | Milk | Cream |
|---|---|---|
| Vermont | 80,316,047 | 10,419,170 |
| Northeastern New York | 31,322,850 | 1,877,840 |
| New Hampshire | 16,658,430 | 1,066,704 |
| Maine | 16,265,350 | 3,759,981 |
| Masssachusetts | 13,797,675 | 381,728 |
| Connecticut | 4,456,480 | 13,878 |
| Canada | 341,460 | 1,850,550 |
| Rhode Island | 13,418 | 5,406 |

The Boston and Maine Railroad covered shipments from Maine, New Hampshire, and Vermont; the Boston and Albany, those from Massachusetts and New York; the New York, New Haven and Hartford, those from Connecticut, Rhode Island, and Massachusetts. This table appeared in the Vermont Department of Agriculture report for 1922-24, p. 60.

[31] Vermont Department of Agriculture report for 1924-26 (Report of the Vermont State Dairymen's Association, p. 13). During the same period the Massachusetts shipments decreased from 13,500,000 to 10,280,000 quarts, while the amount of milk sent from northeastern New York into the southern New England market increased from 27,000,000 to 33,400,000 quarts.—*Ibid.*

101,000,000 quarts in 1925, to 126,000,000 in 1928, up to 139,000,000 in 1930.[35]

The fact that Vermont was able to produce more cheaply than near-by competing regions gave her a decided advantage in the dairy industry. In 1929, for instance, the average gross cost for each cow per year, including grain, pasture, labor, milk haulage, depreciation, and miscellaneous charges, was $157.69 on sixty-seven typical northern Vermont farms; $176.79 on twenty-two southeastern Vermont farms; $188.40 on forty-nine representative farms in New Hampshire and Maine; and $240.00 on seventy-seven typical farms in southern New England.[36] The natural suitability of Vermont to dairying,[37] and the tendency of her farmers to raise their own feed as far as possible,[38] were the chief reasons for the lower cost.

The position of the state in the dairy production of northern New England is very clearly shown in the map on page 315, which gives the location in 1925 of all dairy stations in that region which were conducting an export business. There were in Vermont at that time one hundred proprietary country stations, owned by city dealers, which shipped out their products

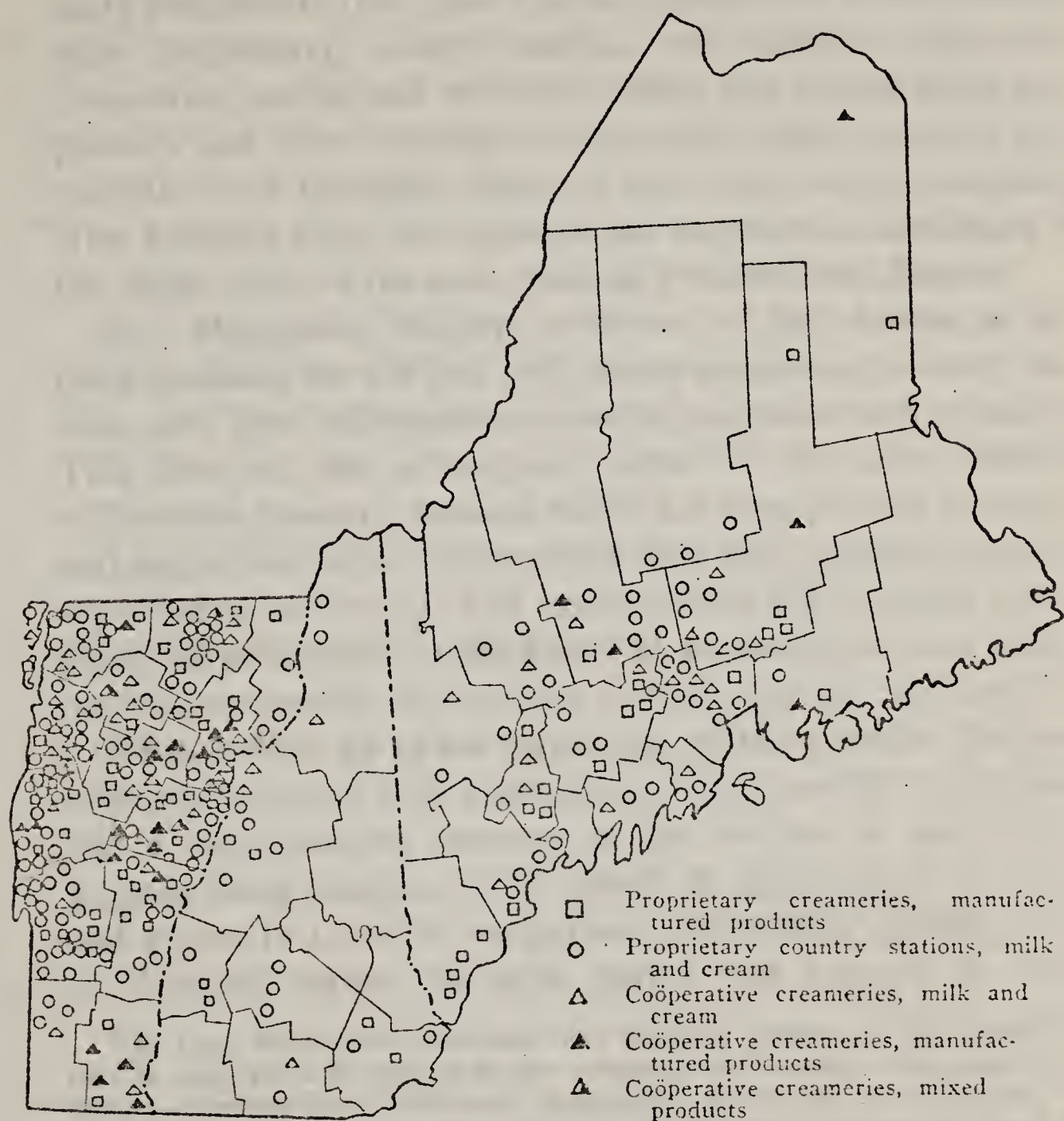
[35] Aplin, *Milk Marketing in the Boston Milk-Shed*, p. 2. Between 1928 and 1931 shipments of milk to Boston from New York State declined from 30,000,000 quarts to 21,000,000, those from Massachusetts from 11,000,000 to 7,000,000 and those from Connecticut from 2,000,000 to a negligible amount, while New Hampshire's rose from 10,000,000 to 25,000,000, Maine's from 12,000,000 to 17,000,000 and Vermont's from 126,000,000 to 143,000,000.—*Ibid.*

[36] Hills, *The Position of Northern Vermont among American Dairy Farming Regions*, p. 19. This information was procured by the United States Tariff Commission.

[37] In 1925 an investigator from the Bureau of Agricultural Economics of the Federal Department of Agriculture declared, "Western Vermont enjoyed the best natural conditions in New England for dairying."—McFall, *The New England Dairy Market*, p. 8. This was recognized as early as the seventies. A member of the New Hampshire Board of Agriculture stated in 1871, "If you should ask me which state of New England has the best grazing land, I should answer decidedly 'Vermont.'"—New Hampshire Board of Agriculture report for 1871, p. 300.

[38] *New England Homestead*, Vol. LXIII, No. 4 (July 22, 1911), p. 67.

as milk and cream; twenty-seven coöperative creameries, owned by local citizens, sending out milk and cream; and five co-operatives exporting mixed products. In addition, there were




COUNTRY DAIRY PLANTS IN NORTHERN NEW ENGLAND, 1925
Data from McFall, *The New England Dairy Market*, p. 22.

seventeen of this latter type, generally situated in towns off the railroad or not on main lines, and forty-one proprietary creameries, owned by private citizens of the various villages

and likewise off the railroad, where the farmers' milk was turned into butter, or in a few cases, into cheese.

Maine possessed the next largest number of plants shipping dairy products to the cities. The map shows that she had thirty-eight proprietary country stations and eighteen coöperative creameries sending out milk and cream, and twenty-three proprietary and three coöperative creameries which exported only manufactured products. Most of her sales were to southern New England cities, but some of her output was distributed in the larger cities of the state, such as Portland and Bangor.

New Hampshire displays evidences of the decline in her dairy business, for she had only eleven proprietary country stations and four coöperatives exporting manufactured products. This does not give a complete picture of the dairy industry of the state, however, because within her bounds there were several large cities which drew most of their dairy supplies from the surrounding territory,[39] and because with the nearness of the points of production to the places of consumption such equipment as creameries or receiving stations was not required.[40]

Nevertheless, up to the latter part of the twenties the total milk production of New Hampshire shrank steadily,[41] and there was a corresponding decrease in the number of dairy cows. 115,000 being reported in the census of 1900, 101,000 in 1910, and 96,000 in 1920. In comparison, the number of dairy cows in Vermont during the same period was 270,000 in 1900.

[39] In 1903, when there were more milk shipping stations in New Hampshire than in 1925, twice as much milk was consumed in the state as was exported to Boston.—Granite State Dairymen's Association, *Report of the Twentieth Annual Meeting* (Laconia, Dec. 8-9, 1904), p. 85. By 1917, fully two-thirds of the state's population of 430,752 were dependent upon local dairy farmers for their milk, the city of Manchester importing part of her supply from Lancaster, in the White Mountain region, 100 miles north.—L. M. Davis, *A Survey of Dairy Marketing Conditions and Methods in New Hampshire*, p. 39.

[40] Gerish, *The Commercial Structure of New England*, p. 193. This situation obtained to a greater degree in the southern New England states, particularly in Connecticut.—*Ibid.*

[41] See Appendix 3, Table III.

265,000 in 1910, and 290,000 in 1920, while Maine had 174,000 in 1900, 157,000 in 1910, and 175,000 in 1920.[42] The reduction in New Hampshire's output was due to several factors, the most important of which was the competition from Vermont,[43] The continued abandonment of submarginal farms during this period[44] and a lessening fertility of the pastures of many occupied farms, resulting from lack of attention,[45] were additional causes. A further influence was the difficulty in obtaining farm labor, occasioned by the opportunities offered in near-by manufacturing industries—a circumstance which often forced the husbandman to reduce the size of his dairy until it became too small to show any profit.[46] Under these conditions, many farmers in the southern and central sections of the state turned their attention from dairying to fruit and poultry raising, or

[42] Report of the Fourteenth Census, Vol. V: *Agriculture*, p. 573. The value of these figures for comparative purposes is lessened by the fact that the various censuses were taken at different times of the year, and that different definitions for dairy cow were used. In 1900 the census returns relate to the number of cows on June 1; in 1910, to the number on April 15; and in 1920, to the number on January 1. The number of cows on the farm in the middle of the winter was usually smaller than in the summer. Moreover, in the Census of 1920 the farm schedule defined dairy cows as those "kept mainly for milk production," while in 1910 the classification was broadened to include all cows "kept for milk," stating that cows milked for three months or more during the year were to be reported under that grouping.—*Ibid.*, pp. 553, 573.

During the twenties, with more scientific feeding and better bred animals, the number of dairy cows decreased in all three states, although the amount of milk produced rose. The 96,000 dairy cows reported in New Hampshire in 1920 fell to 82,000 in 1925, and to 69,000 in 1930, while Vermont's 1920 figure of 290,000 dropped to 279,000 in 1925, and 255,000 in 1930, and Maine's total sank from 175,000 in 1920 to 151,000 in 1925, and 125,000 in 1930.—Reports of the Fifteenth Census: *Agriculture*, bulletin for Vermont, first series of bulletins, p. 5; *ibid.*, for New Hampshire, p. 5; *ibid.*, for Maine, p. 5.

[43] L. M. Davis, *A Survey of Dairy Marketing Conditions and Methods in New Hampshire*, pp. 11 *et seq.*

[44] See below, p. 346. Submarginal farms were being given up at a faster rate in New Hampshire than in Vermont or Maine.

[45] E. H. Thompson, *Agricultural Survey of Four Townships in Southern New Hampshire*, p. 4. This condition was particularly true in the southern part of the state.

[46] L. M. Davis, *A Survey of Dairy Marketing Conditions and Methods in New Hampshire*, pp. 11 *et seq.* According to this investigator, a herd of at least ten cows was necessary, and this required thirty acres of tillable land.—*Ibid.*

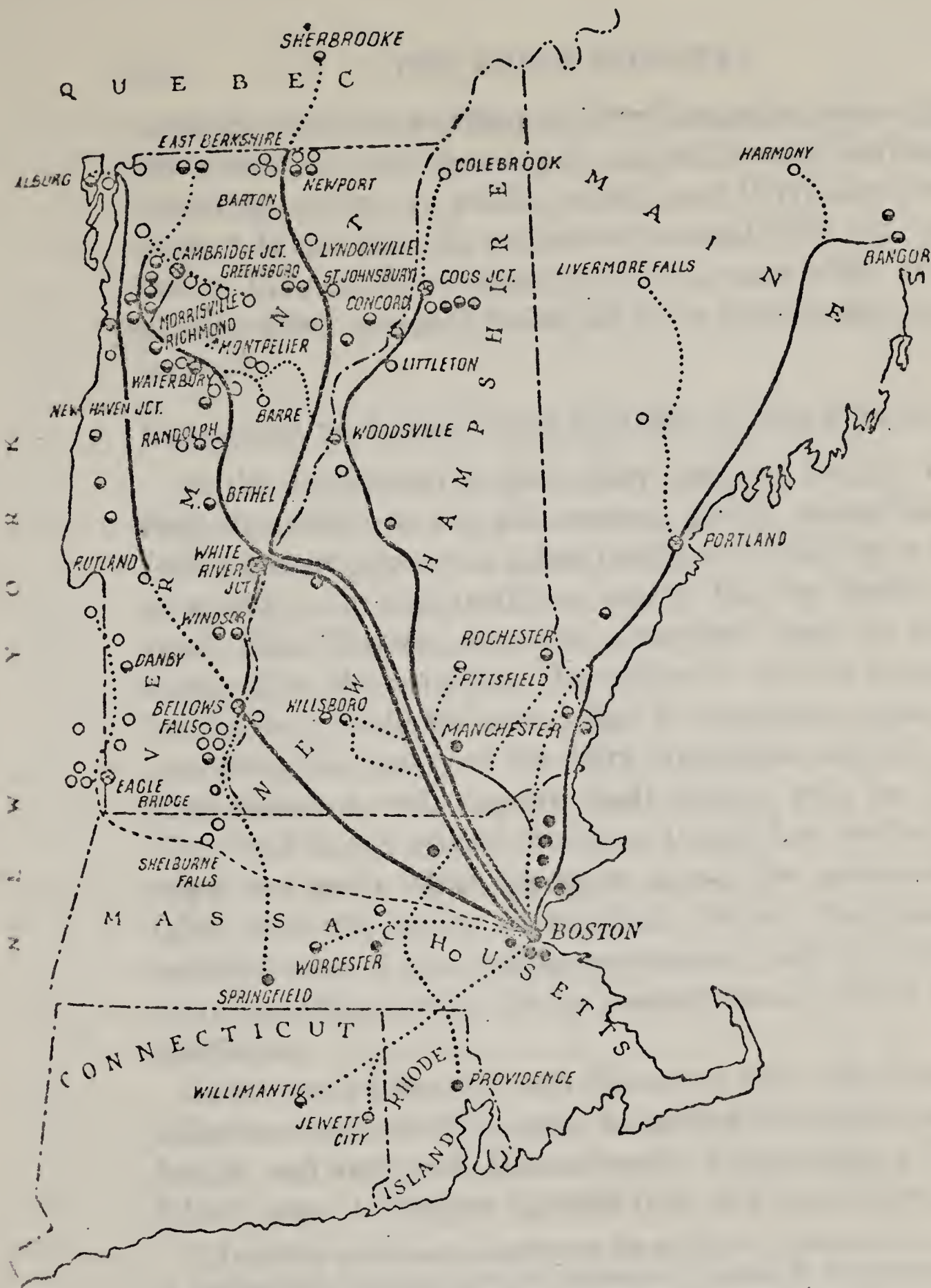
to truck gardening.[47] The advantages in doing so may be seen in the fact that in 1913, after an investigation by the Bureau of Farm Management of the Federal Department of Agriculture of over two hundred representative farms in towns east of Concord, in south central New Hampshire, it was reported that the average labor income on the dairy farms was $337 per year or $1.07 a day, not including Sundays, and the dairyman had to work Sundays as well as week days, while the average labor income on the poultry farms was $479 per year, and on the fruit farms, $1,100.[48]

By the latter part of the twenties the milksheds of southern New England extended into every section of the hill country, and the exports of fluid dairy products from that region reached imposing figures. In 1928, northern New England sent 279,561,000 quarts of milk and 40,296,000 quarts of cream by rail to cities in Massachusetts, while Vermont and Maine shipped 4,880,000 quarts of milk by rail to Rhode Island. In addition, the southern portions of the three northern New England states sent 8,668,000 quarts of milk south to market by truck.[49] The map on page 319, which pictures the daily milk movements by rail from the hill country to Boston and other New England cities in this year, shows that five milk trains made their way into Boston, while Worcester and Springfield, Massachusetts, and Providence, Rhode Island, were destination points for milk shipped in cars attached to passenger trains. Suburban cities around Boston, Lowell and other northeastern Massachusetts cities, and Manchester, New Hampshire, are also designated as receiving points. It will be noticed that two places in Maine were furnishing whole carloads, and five, part

[47] *Ibid.*, Thompson, *Agricultural Survey of Four Townships in Southern New Hampshire*, p. 4.

[48] Dodge, "The Influences on Farm Management of Some New England Conditions," p. 85. The report of the investigation declared that dairying required a larger acreage than the farms in this region generally possessed.

[49] Gerish, *The Commercial Structure of New England*, p. 103. The shipments by rail into Massachusetts include supplies going to many urban areas outside the Boston metropolitan district.




DAILY MOVEMENTS OF MILK FROM NORTHERN NEW ENGLAND TO BOSTON AND OTHER CITIES, 1928

Data from Gerish, *The Commercial Structure of New England*, p. 93.

carloads; that four localities in New Hampshire were supplying whole carloads, and eleven, part carloads; while Vermont was exporting twenty-two whole carloads and thirty-nine part carloads.[50] At this time, 85 percent of the total daily milk production of Vermont was shipped out of the state, while of the 15 percent which remained inside, all but 2 percent was made into butter.[51]

## Endeavors to Improve the Quality of Milk Production

As the exportation of fluid dairy products became increasingly important to the hill country, public authorities there took a greater interest in aiding dairymen to ship out a product of a sufficiently high quality to satisfy the city health regulations. Since Vermont was more dependent upon the dairy industry than Maine or New Hampshire, it was but natural that her leaders should be more active in promoting measures for improving the quality of the dairy production, and this discussion, therefore, will concern itself largely with her policies. The trend was in general the same, though less marked, in the other two states. Most important among the measures undertaken were the efforts to eradicate bovine tuberculosis, the establishment of cow-testing associations, and the installation of an inspection service for the maintenance of proper sanitary conditions.

In the early nineties it was discovered that milk from tubercular cows was an active agent in causing the disease in human beings, and very soon Massachusetts, Connecticut, and Rhode Island began to require rigorous tests and inspections of cows

[50] According to the map on page 319, the milk train which started at Alburgh in northwestern Vermont ended its journey at Rutland in the same state. This train, however, continued to New York City as a milk train, while the milk cars destined for Boston were hauled by passenger train from Rutland to Bellows Falls, where they were attached to a milk train made up there for Boston.

In 1929, half of the milk shipped outside of Vermont went to the Boston market, and one-sixth to New York. An account of a survey made by the Industrial Research Division of the Massachusetts Institute of Technology in the *New York Times*, Sunday, Feb. 8, 1931, Section 2, p. E 5.

[51] *The Vermont of Today*, II, 589.

producing milk to be sold in those states.[52] In 1894 Vermont began its campaign to eradicate bovine tuberculosis by the passage of a law providing for the examination of cattle for the disease, and a partial reimbursement to the owners of condemned animals. Unless the cattle had been imported from outside the state, however, inspections could be made only with the consent of the owners. The value of the cattle killed by the order of the state Board of Agriculture[53] was appraised by a member of the Board and a disinterested person selected by the owner, the limit being $40. A post-mortem examination was made, and if the animal was found affected with tuberculosis or any other disease dangerous to public health, the owner received one-half the estimated value from the state; but if neither were discovered, he obtained the full amount of the appraisal and, in addition, the slaughtered animal.[54]

Although the fact that the owner's consent had to be secured before tests could be made left the law without teeth, the desire to have their milk certified to be from tuberculin-tested cows led a considerable number of farmers to ask for inspection. Minor changes were made in the provisions of this statute as the period advanced,[55] and in 1925 a distinct forward step was taken when the Vermont Legislature enacted a law providing for the testing of cattle by areas. According to this act, the Commissioner of Agriculture was authorized to have all cattle in any town examined if he were presented with a petition signed by the owners of 90 percent or more of the cows in the district. If any farmer refused to submit to the investigation after the testing had begun, his barns, premises, cattle, and swine were to be placed under quarantine, during which dairy products could not be moved from his farm except under

[52] Waugh, "New Farming for Old New England," p. 18.

[53] The cattle were killed only by written order of the Board.

[54] Vermont Board of Agriculture report for 1900, p. 9. Not until 1919 was any indemnity paid by New Hampshire for cows that reacted to the tuberculin test.—New Hampshire Department of Agriculture report for 1920-22, p. 32.

[55] Vermont Department of Agriculture report for 1920-22, p. 73.

certain narrow restrictions. Once an area had been inspected and given a clean bill of health, no cows could be imported into it without a similar guarantee.[56]

The benefits of this plan were obvious. Buyers from southern New England, who were demanding tested stock to replenish their herds, were attracted to localities where it might be obtained by the carload with a minimum of travel and effort. The risk of contamination from neighboring unclean herds was eliminated, thus facilitating the local exchange of cows, and furthermore, after an area had been tested, the separation of healthy from diseased animals in both barn and pasture was no longer necessary. By the end of this period, 210 towns in Vermont had either been examined or were on the waiting list, only 28 having made no move.[57]

During the last twenty years of this period, extension workers and other agricultural leaders endeavored to inculcate in dairymen a realization of the value of well-bred stock. Scrubby or low-grade cows could not compete with high-grade animals for profits, though the poorly bred "robber cow" had to be housed and fed just like the better one. She required just as much space in the barn and pasture. She ate as much as, and sometimes more than, the well-bred animal, but produced less milk, of a poorer quality.[58]

By keeping samples of the milk from each cow separate, and testing it over a period of time, it was possible to discover what animals in the herd were good producers and what ones were poor. The Danes adopted the cow-testing association in 1895[59] and the first one in America was organized by a young Dane

[56] Report of the Commissioner of Agriculture in the Vermont Department of Agriculture report for 1924-26, p. 79. The petitions applying for an area test were usually circulated among the cattle owners in the town by the county Extension Service Agents.

[57] Bulletin issued by the State Department of Agriculture, quoted in the *Bethel Courier*, April 7, 1932, p. 2. At the end of 1931, 107 of the 210 towns had been tested.

[58] *The Food Supply of New England*, p. 158.

[59] Vermont Department of Agriculture report for 1924-26 (Report of the Vermont State Dairymen's Association, p. 30).

in Fremont, Michigan, in September, 1905.[60] In 1906, upon the urging of public officials, particularly Dr. J. L. Hills, later Dean of the state Agricultural College, the Vermont Dairymen's Association appointed a committee to investigate the feasibility of forming such associations, and a beginning was made in 1908 when one was started near Morrisville in the north central part of the state.[61] Interest was gradually aroused, and the movement slowly spread among the more progressive farmers.

The number of associations fluctuated, the average between 1915 and 1925 being nineteen. Many of these were discontinued after a year or two, as the farmers often felt that, once they had learned the comparative value of the cows in their respective herds, they did not need to continue the testing. For instance, of the twelve associations active in 1918, only four were still existent in 1924. In 1922 there were nineteen, but by 1924, largely because of the great difficulty in securing men to act as testers, the number had dropped to thirteen.[62] By the end of 1925, however, it had increased to twenty.[63] Although in that year every county in the state was served at least in part by some association, only five hundred herds—about eleven thousand cows or approximately 4 percent of the total number being milked—were registered in them. Nevertheless, the Extension Dairy Specialist for Vermont declared that to his knowledge no other state had so large an enrollment.[64]

[60] *New England Homestead,* Vol. LXVII, No. 11 (Sept. 13, 1913), p. 183.

[61] Vermont Department of Agriculture report for 1924-26 (Report of the Vermont State Dairymen's Association, p. 30).

[62] Vermont Department of Agriculture report for 1922-24, p. 51.

[63] Vermont Department of Agriculture report for 1924-26 (Report of the Vermont State Dairymen's Association, p. 31). In 1923 the supervision of the associations was transferred from the state Department of Agriculture to the Extension Service of the College of Agriculture. Almost all the testers were men who had taken short special courses in agricultural colleges and schools.—*Ibid.*

[64] *Ibid.* The first Association in Maine began work in 1908, the same year as in Vermont, but the first in New Hampshire was not established until 1911. There were 4 in the latter state by 1915 and 12 by 1917, the associations having an average enrollment of about 400 cows.—Maine Department of Agriculture report for 1908, p. 183; *Cow-Test Association Work in Maine,* p. 83; Ras-

These organizations not only demonstrated the comparative value of different cows, but they also showed how important proper feeding and regular care were in bringing out the inherited qualities. Their influence upon dairy production may be seen in the fact that while the average amount of butterfat given by each cow enrolled in them in 1918 was 205 pounds, in 1923, thanks to the removal of robber cows through better breeding and the sale of the poorer stock, and to more scientific feeding, it had risen to 249 pounds per cow.[65]

The outbreak of typhoid fever and diphtheria in Boston, with the consequent decrease in the volume of milk sales, made officials in Vermont realize that a strict supervision of the conditions under which milk was produced and handled was fully as important as action against tuberculosis or for pure-bred stock. In 1912 the Legislature undertook to remedy this deficiency by the passage of the Creamery Inspection Act, which provided for a semi-annual examination by state inspectors of all plants handling dairy products. The inspectors were required to take cognizance of the condition in which milk and cream was delivered, and to investigate dairies and the premises of farmers bringing in poor goods. They were further given authority to issue orders which would result in raising the quality to at least a meduim standard, and no licensed plant was allowed to purchase for export out of the state milk or cream from any farmer who did not make the required improvements.[66]

The first creamery inspection was made in 1913, and by 1917

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mussen and Davis, *Some Results of Cow-Test Association Work in New Hampshire*, p. 11; New Hampshire Department of Agriculture report for 1918-20, p. 18.

[65] Vermont Department of Agriculture report for 1922-24, p. 50.

[66] E. S. Brigham, "Report of the Commissioner of Agriculture," p. 10. The statute did not prohibit the product from being sold locally or made into butter.

In 1925 the New Hampshire Legislature established the office of State Dairy Inspector and enacted regulations with reference to butterfat tests.—New Hampshire Department of Agriculture report for 1924-26, p. 5.

three examiners were employed by the state. Representatives of health authorities of southern New England cities also investigated farms sending out milk of a poor quality, and the state inspectors endeavored to help the farmers meet their requirements. In the early twenties, for instance, 146 whole-milk producers were excluded by the Boston Board of Health from shipping their goods to that city, but the majority of these were assisted by Vermont officials to remedy their faults and were reinstated.[67] The state authorities coöperated with the city health departments by keeping their requirements at least equal to the standards imposed by the cities. The most important demands of both were that the cattle and the people working with them be healthy, the utensils and machines scalded and sanitary, a separate milk house or room provided, the milk properly cooled, and the stables and cowyards kept airy and clean.[68]

The territory inspected and the range of tests made widened steadily throughout the twenties. In the year ending June 30, 1925, for example, 259 creameries in Vermont were examined by state authorities, and in the next year, 275. In the same period the number of cheese factories inspected increased from 21 to 38; the shipping stations investigated, from 268 to 313; and the condensaries examined, from 8 to 15. The number of butterfat tests[69] made rose from 6,221 to 11,337.[70]

The inspection service brought about a gradual but steady

[67] Vermont Department of Agriculture report for 1922-24, pp. 45-46.

[68] Vermont Department of Agriculture report for 1926-28, pp. 14-15. For the requirements for the production of milk and cream, as set by the Vermont Department of Agriculture in 1927, see Appendix 3, Table III, conclusion.

[69] The milk and cream plants tested samples of the farmers' products to find out the average content of butterfat, upon which basis they were usually paid. The laws for testing milk and cream were revised in 1923 so as to require the plants to hold composite samples for at least four days after the tests were first made, so that check tests could be made by state inspectors. After this, the complaints of dairymen regarding plant tests were more satisfactorily investigated by the state officials.—Vermont Department of Agriculture report for 1922-24, p. 58.

[70] Vermont Department of Agriculture report for 1924-26, p. 11.

improvement in both raw and manufactured dairy products.[71] Consequently, health officials in southern New England preferred to have the fluid dairy supplies for their cities obtained in these near-by regions, whose methods of production they could supervise, rather than in areas outside of New England, where sanitary conditions might not meet their standards.

[71] One milk and cream plant in Vermont reported in 1924 that its farmers, in response to demands made by inspectors, had in one year built 122 separate milk houses, installed 126 cooling tanks, and removed 79 separators to more sanitary places. Eighty-nine had begun to put up ice to keep their products cool in summer, and 40 others had purchased milk coolers.—Vermont Department of Agriculture report for 1922-24, p. 57.

# XVI

## DAIRYING PROBLEMS AND ATTEMPTS TO SOLVE THEM

*Since dairying is the predominating feature . . . of agriculture, conditions which retard its progress and development should not be disregarded.*[1]

THE unique advantage of being close to a consuming area, two sides of which were cut off from other sources of supply by the Atlantic Ocean, gave the hill country almost complete possession of the southern New England market for fluid dairy products for the first two decades of this period.[2] But if competition could not come from the south and east, it was possible from the west and north. Just as cheaper production was a strong factor in sending dealers out of Massachusetts into northern New England for their supplies, so the still less expensive production in the Middle West and Canada led them to enter those regions.

### The Question of Outside Competition

The northeastern part of New York, which sent a considerable amount of milk and cream into southern New England, was never considered a serious competitor, for the cost of production there was approximately the same as in the hill country, while the demands of metropolitan New York on that area precluded the possibility of much increased exportation. The Midwest, however, possessed advantages in dairy production which could, to some extent, overcome the proximity to market enjoyed by the hill country. While the New England

[1] Report of the Commissioner of Agriculture, E. H. Jones, in the Vermont Department of Agriculture report for 1930-32, p. 7.

[2] Massachusetts, of course, continued to furnish limited supplies, while Connecticut's demands were met practically in their entirety by her dairy farmers.

dairyman had to spend large sums on grain for feed,[3] the Middle Westerner, with his larger and more level farm, was able to raise his own or procure it cheaply. In addition, the Midwest had a pasture season almost a month longer than the hill country's.[4] Consequently, milk could be produced more cheaply in the Midwest than in New England. For instance, the comparative cost in 1921 of producing one hundred pounds of milk was far higher in Vermont than in Indiana,[5] and in 1929, near the end of this period, the average total gross cost per cow per year was, as we noted in the previous chapter, $157.69 on the typical northern Vermont farm, $176.79 on the southern Vermont farm, and $188.40 on representative farms in New Hampshire and Maine, whereas it reached an average of only $141.50 on fifty-two typical Iowa and Minnesota farms.[6]

The hill-country dairymen did not experience serious competition from the West in fluid milk, however, for although the introduction in the twenties of the glass-lined, thermo-tanked car for the shipping of Western milk East caused great concern amongst them,[7] the method was not found to be wholly feasible, and the cost of transporting so bulky a product acted indirectly as a protective tariff for the New England farmers.[8] Nevertheless, in case of a milk shortage, or of New England

[3] Artman, *The Industrial Structure of New England*, p. 27. See Appendix 3, Table III-D, for Table of Feeds Consumed in New England in 1924.

[4] Hills, *The Position of Northern Vermont among American Dairy Farming Regions*, p. 13. Northern New England had about four months and three weeks of pasture season, while the Midwest had from the same to five months and two weeks.—*Ibid.*

[5] Larson, "The Dairy Industry," p. 349.

[6] Hills, *The Position of Northern Vermont among American Dairy Farming Regions*, p. 19.

[7] "The new glass-lined, thermo-tanked cars and trucks make it possible for Western dairymen to reach hitherto unthought of markets. Just how far they can afford to ship milk and just how long-distance shipping will affect quality, has not been determined."—Vermont Department of Agriculture report for 1926-28 (Report of the Vermont State Dairymen's Association, p. 43).

[8] In 1928, only one tank car, having a capacity of 6,000 gallons—equivalent to 2.2 standard New England milk cars—was coming into Boston daily. New York at that time had 5, Philadelphia, 8, and Chicago, 62.—New Hampshire Department of Agriculture report for 1926-28, p. 320.

producers holding out for a higher price, the Eastern dealers could procure milk from the West in these improved tank cars until the emergency was over.

It was in the concentrated forms of cream and butter, which were less perishible and could be more easily transported, that Western rivalry was the greatest menace.[9] Large sections of the hill country exported only these two products, and these localities, most of them off the railroad, were particularly vulnerable. In 1924, for example, Vermont ranked third as a source of Boston's butter supply, but by 1930 her contribution was almost negligible. In the previous year less than one percent of Boston's butter had come from New England.[10] Fifty-one percent of the total amount of cream received by rail in the Boston market in 1925 came from Vermont, while only one percent was imported from points west of Buffalo. In 1927, Vermont's proportion was 48 percent and that of the Midwest, 5 percent,[11] while by 1928 the latter area was supplying 13 percent. In the winter season, when it was expensive for the hill-country farmers to feed their cows sufficient grain for them to produce much cream, the Midwest was able to capture an even greater proportion of the market. In December, 1928, for instance, 49 percent of Boston's cream came from this part of the country.[12]

Although little could be done to facilitate the marketing of northern New England butter except to stress quality production,[13] in the selling of cream, temporary restraining orders issued by southern New England health authorities on Western

[9] McFall, *The New England Dairy Market,* pp. 56-57; Vermont Department of Agriculture report for 1924-26 (Report of the Vermont State Dairymen's Association, p. 6).

[10] J. G. Davis on "Agricultural Production in New England," p. 161.

[11] Carrigan, The Effect of Extension Education on the Seasonal Surplus Milk Problem in Addison County, Vermont, p. 19.

[12] *Bethel Courier,* March 21, 1929, p. 1.

[13] The Vermont Commissioner of Agriculture reported in 1925 that he had been informed that Vermont butter was being crowded off the counters in a certain city in New Hampshire by a quality brand shipped by the Creamery Federation of Minnesota. He added, "We can ill afford to be jostled aside in our own markets by competitors 1,500 miles away, and I firmly believe that

goods sometimes gave control to the near-by producers for a short time. In February, 1930, for example, the Boston Board of Health excluded Western cream, explaining that they preferred cream coming from their own inspected areas in New England to that coming from elsewhere, some shipments of which, especially a few from Wisconsin, had not been up to standard. The hill-country dairymen were jubilant over this, for at that time about three million dollars' worth of cream was coming annually from outside of New England. Moreover, in New York, which had been excluding western cream for several years, the price had been considerably higher than in Boston.[14] Their exultation was short-lived, however. By August of the same year the restraining order had been removed, and 28 percent of the cream imported into Boston was coming from the West, while a year later, in August, 1931, the proportion had risen to more than 50 percent. This was partially due, it should be noted, to a considerable temporary decline in New England production at that time,[15] and more particularly to the enormous drop in the shipments of Canadian cream resulting from the high tariff.

If it was next to impossible to check the influx of dairy products from the West, Canadian competition, which had been increasing since the middle of the period, could be stopped at least temporarily by political means. The Underwood Tariff of 1913 left a duty on Canadian butter, but removed the small tax on milk and cream. By 1915, the Province of Quebec was producing butter, cheese, and cream in nearly 1,500 dairy plants,[16] and a considerable percentage of the latter was finding its way into southern New England. Indeed, by 1919,

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we must devote more attention to the care of our milk and cream on the farm and the quality of the output of our creameries."—Vermont Department of Agriculture report for 1924-26 (Report of the Vermont State Dairymen's Association, p. 13).

[14] *Bethel Courier*, Feb. 20, 1930, p. 1.

[15] *Bethel Courier*, Aug. 6, 1931, p. 1.

[16] Boston Chamber of Commerce, *Investigation and Analysis of the Production of Milk and Cream in New England*, p. 8.

416,000 gallons of Canadian cream were being imported into Boston.[17]

The hill country set up a cry for protection as soon as it felt the Canadian importation as serious competition, and in the early twenties the clamor became more pronounced. The Vermont Dairymen's Association declared that American dairy farmers should be given protection equal to the difference between the cost of production in the United States and that in Canada, and cited figures it had secured for the New England states and the Province of Quebec for the month of April, 1921, which showed a difference in favor of Quebec of 40 cents per gallon for cream, 3.5 cents per gallon for milk, and 10 cents per pound for butter. The organization demanded for American dairymen a protection which would be as effective as that applied to other industries, "in order," its representatives declared, "to encourage and maintain an intelligent class in the production of milk . . . and in the preservation of farms in a high state of fertility."[18]

Midwestern dairymen were also asking for high rates against cream and manufactured dairy products, and, in answer to the wide-spread agitation, the Fordney-McCumber Tariff Act of September, 1922, provided a duty of 20 cents per gallon on cream, 2.5 cents per gallon on milk, and 8 cents per pound on butter. The dairy farmers did not find this tax sufficient protection, however, for the imports continued. During the month of June, 1928, 565,000 gallons of milk and 441,000 gallons of cream came into the United States from Canada, a considerable percentage going into the Boston market, while June, 1929, showed an increase to 638,000 gallons of milk and 488,000 gallons of cream.[19]

[17] Vermont Department of Agriculture report for 1920-22 (Report of the Vermont State Dairymen's Association, p. 55).

[18] *Ibid.*, p. 54. One reason for the cheaper production in Quebec was the more general engagement of the wives and daughters in the milking and other dairy operations.—*Ibid.*

[19] *Bethel Courier*, June 26, 1930, p. 1; Sept. 26, 1929, p. 1.

In answer to renewed pleas from the dairy producers, the rates were increased in June, 1929, to 30 cents per gallon on cream, 3.75 cents per gallon on milk, and 12 cents a pound on butter, while the Hawley-Smoot tariff measure, which became effective June 18, 1930, carried still higher charges—56.6 cents per gallon on cream, 6.5 cents per gallon on milk, and 14 cents a pound on butter.[20] The hill country was deeply gratified. One central Vermont weekly newspaper declared with satisfaction, "It is quite evident from a study of the Hawley-Smoot tariff . . . that the Vermont delegation was constantly working for the best interest of the state during its preparation in the House and the Senate."[21]

The success of this act in accomplishing its purpose can be seen in the report for the following year of the Vermont Customs District, through which passed most of the dairy products from Quebec to the Boston market. Prior to the passage of the 1930 Tariff Act, Canadian milk and cream were among the leading imports of the district, with shipments averaging over 100,000 gallons each every month. During the twelve months following its enactment, importations of these products diminished until they were practically negligible.[22]

## The Major Problems

Early in this period, in 1902, a hill-country correspondent wrote to the *New England Homestead* to explain why northern

[20] L. B. Johnson in the *Bethel Courier,* June 26, 1930, p. 1. This new rate also applied to oleomargarine and other butter substitutes. A substantial increase in the duty on cheese was also provided, the former rate of $.05 per pound but not less than 25 percent ad valorem being advanced to $.07 per pound but not less than 35 percent ad valorem, while the charges on hay and straw, which under the 1922 act were $4.00 a ton and $1.00 a ton respectively, based on the long ton of 2,240 pounds, were raised to $5.00 per ton on hay and $1.50 on straw, based on the short ton of 2,000 pounds.—*Ibid.*

[21] *Ibid.*, p. 2.

[22] *Burlington Free Press,* June 20, 1931, p. 2. It should be noted that in the reciprocal trade agreement, negotiated between the United States and Canada in November, 1935, the duty on Canadian cream per gallon was cut from 56.6 cents to 35 cents. "It looks like a sell-out of the Vermont farmer," declared the same Vermont weekly newspaper which had praised the Hawley-Smoot tariff. —L. B. Johnson in the *Bethel Courier,* Nov. 21, 1935, p. 2.

New England did not "figure very conspicuously in the Boston milk supply." He noted these factors:

> The first reason is the uneven production. . . . Some farmers that shipped fifty cans of milk per day last summer sent none during the winter.[23] . . . The second reason is the transportation. Freight rates are high. . . . The third reason is that it is detrimental to the dairy interests . . . to have their interests broken up in the manner in which they have been by the contractors.[24]

These same three problems—the disturbing seasonal surplus, the provision of better and more convenient means of transporting fluid dairy products, and the establishment of some agency for marketing them so that the farmer would receive a fair return—faced the hill country throughout this period. By its end, the first had been coped with to some extent, and the second satisfactorily settled, but the third waxed more serious as the period progressed, until 1930 found the hill-country farmers demoralized by over-production and consequent price-cutting, with little immediate hope of effecting a centralized marketing agency strong enough to obtain a fair profit. The attempts to solve these problems constitute an important phase of the history of the dairy industry in northern New England.

Seasonal overproduction of milk was much more disturbing than seasonal overproduction of most farm crops. The latter, as a rule, could be stored and distributed at intervals to suit an approximately even demand. Manufactured dairy products could be withheld to a certain extent to fit their distribution to an even flow of consumption, and even sweet cream was sometimes put into cold storage, but fluid milk was not commercially storable. All seasonable production in excess of the market demand had to be disposed of in some form other than

[23] "The experience of the St. Albans (Vt.) Creamery backs this up," observed this correspondent. "In May, 1897, the output of butter was 400,000 pounds, and in December of the same year, 75,000 pounds."

[24] Letter of W. W. Barry in the *New England Homestead*, Vol. XLIV, No. 4 (April 5, 1902), pp. 500-501.

milk, and, in general, such outlets afforded a far lower price to the producer.[25]

Notwithstanding the arguments advanced for winter dairying, there continued to be a wide difference between the winter and summer production.[26] A Massachusetts authority noted in 1919 that the New England farmers were showing a stronger tendency than ever toward summer dairying and were increasingly likely to produce most of their milk in the season of the year when it could be made most cheaply,[27] while a Vermont writer complained in 1924 that the milk production in most districts in that state varied over a range of almost two to one.[28] The city demand, on the other hand, did not change so greatly with the seasons.[29]

By the mid-twenties vigorous efforts were being made to influence the hill-country farmers to produce a more even supply of milk. Local creameries in many vicinities gave a better all-year-round price to the dairymen who offered steady deliveries,[30] and the Extension service emphasized the importance of a more uniform production.[31] Northern New England never

[25] Gerish, *The Commercial Structure of New England*, p. 196; McFall, *The New England Dairy Market*, p. 9.

[26] Weyburn, *The Importance of the Dairy Industry to the Citizenship of New England*, p. 10.

[27] A. W. Gilbert, "What about Milk?" p. 3. Mr. Gilbert was the Massachusetts State Commissioner of Agriculture.

[28] W. D. Frost, "Creamery Problems," p. 45. The seasonal surplus was most marked in the Champlain Valley area in western Vermont, where the daily production was often several times as great in the early summer as in the winter —Gerish, *The Commercial Structure of New England*, p. 196.

[29] It was subject, however, to severe temporary fluctuations, rising sharply on hot days, but almost disappearing during summer week-ends in the districts occupied by the more comfortably well-off classes, and frequently declining in these areas during the entire vacation period.—Weyburn, *The Importance of the Dairy Industry to Citizenship in New England*, p. 10.

[30] Interview, June 16, 1929, with the treasurer of the coöperative creamery, Bethel, Vt.

[31] For example, the County Agent for Addison County, Vt., in the heart of the rich Champlain Valley area, conducted an intensive campaign for winter dairying in the late twenties and noted beneficial results.—Carrigan, The Effect of Extension Education on the Seasonal Surplus Milk Problem in Addison County, Vermont, pp. 2-5. Mr. Carrigan was the Extension Agent who conducted this campaign.

freed herself of the seasonal influence to a degree even approaching the achievement of southern New England dairy farmers,[32] but winter dairying was far more widespread at the end of this period than at the beginning. Localities near railroad shipping stations engaged in it to an increasing degree during the twenties, although the territory still catering to the market for manufactured products continued to depend heavily upon the early summer pastures, with resulting fluctuation.

The first problem the producer encountered in transporting his milk and cream to market was the means of bringing it from farm to shipping station. Ever since the advent of associative dairying, the hill-country farmer had faced the necessity of hauling his milk to some creamery or factory if he did not wish to turn it into butter or cheese at home; when the city milksheds began to penetrate the region in the first decade of the twentieth century, he was forced to get it to the shipping station daily in time to catch the accommodation train.[33] Producers on isolated farms found this extremely expensive, but otherwise they had to make their milk into butter, which brought a low price. After a certain point, however, the transportation charges overbalanced the higher rates given for fluid milk.

> Experienced men [wrote one observer of New Hampshire farmers in 1905] differ on the limit of distance at which milk can be made into butter and can't be sold clear. But four miles of hilly road is

[32] The producers' association which controlled the Connecticut market imposed a strict penalty upon the individual producers of the state who failed to furnish a steady quantity of milk in accordance with their contract.—Gerish, *The Commercial Structure of New England*, p. 196.

[33] In 1905, according to an investigation of Boston's milk supply made by the Bureau of Animal Industry of the U. S. Department of Agriculture, the milk was carried to the shipping station by horse and wagon in cans carefully covered with a horse blanket or piece of canvas. When the distance was long, a cake of ice often had to be placed under the cover in summer, or a lighted lantern in winter. If the haul was not more than 3 or 4 miles, the farmer generally did his own carting, but where the amount from each farm was small and the producers lived at greater distances from the point of departure, one farmer frequently collected the milk from a number of his neighbors. The customary charge for this was 2 cents a can, which contained 8½ quarts, but if the trip was a long one, a 3-cent collection charge was made.—G. M. Whitaker, *The Milk Supply of Boston, New York, and Philadelphia*, p. 17.

an undisputed limit for the average farmer short-handed as to labor. Otherwise, the time for drawing the milk in to the train from the farm, being drawn away from active, creative farming, eats up the profits. There are those who would set the limit in New Hampshire, with drifting roads and irregularly inclined planes for highways, at two and a half miles.[34]

Another cause of complaint was the time it took to drive back and forth from the shipping station. Some called this procedure "profitless labor."[35] while one commentator lamented in 1910, "The farmers are . . . spending half a day in taking their milk to the train."[36] The advent of the automobile, the truck, and better roads brought this problem to an end, and the dairyman no longer had to waste so many hours getting his milk to the railroad. By 1928, 90 percent of the milk in Vermont was carried by motor trucks or private automobiles, and seven out of every ten Vermont farmers lived within six miles of the nearest market town, more than 60 percent of them directly upon improved highways.[37] In many sections of the hill country regular milk collecting routes were established, and it was then often possible for farmers once out of reach of the railroad to sell their milk in fluid form. Frequently more territory is covered by these routes during the summer than in the winter.[38] At that time, when the drifts pile high and only the main highways are plowed out, and during the spring thaw, when the bottom seems to fall out of the dirt roads, the farmers along this sort of route continue to find transportation a troublesome question.

The producer's difficulties were not over after he had gotten his milk to the railroad, for he still faced the question of its

[34] A. H. Gleason, "New Hampshire: A State for Sale at $10 an Acre," p. 53.

[35] Fiske and Abbott, "The Milk Car vs. the Creamery," p. 69.

[36] Vermont Department of Agriculture report for 1910 (Report of the Vermont State Horticultural Society, p. 97).

[37] *The Vermont of Today,* II, 590. The number of trucks registered in Vermont doubled in the period 1922-28, as did the number of motor vehicles between 1920 and 1928.—*Ibid.* For a "Table of Farms Classified by Kind of Road on Which Located, 1930," see Appendix 4, Table I.

[38] Wilson, "The Roads of Windsor," p. 395.

delivery to the southern New England markets. In the first decade and a half of this period, the large city dealers were able to maintain a virtual monopoly of the area from which they drew their supplies through the leased-car system, under which the railroad companies gave special privileges to those who were able to ship in carload lots. Not only were cheaper rates given to this type of consignment, but special loading facilities and iced cars were also provided. On the other hand, arbitrary rates were charged for milk and cream sent in small lots, and such shippers were further handicapped by being forced to send their products by baggage and without icing.[39] Thus the farmer had to choose between selling to the large dealer who usually operated the only leased car on the line,[40] or shipping it to some city customer by express or excess baggage at a high rate and without ice. He was usually forced to take the former alternative, and his day's produce was bought by the dealer at the latter's price, sometimes dependent on its butterfat content, and sometimes not, and very rarely influenced by its sanitary quality.[41]

The charges for both large and small shipments were further affected by the number of carriers which participated in handling them. Consignments originating in New Hampshire and brought directly into Boston by the Boston and Maine Railroad, for instance, often received lower rates than those starting from a region in Vermont no farther distant but dependent upon more than one railroad system for connections with "The Hub." This resulted in what amounted almost to an embargo on the shipment of milk from certain hill-country areas, especially northwestern Vermont.[42]

[39] *The Vermont of Today*, II, 589.

[40] This was especially true on branch lines, whose territory rarely produced more than one carload of milk.

[41] Weyburn, *The Importance of the Dairy Industry to the Citizenship of New England*, pp. 13-15.

[42] Vermont Department of Agriculture report for 1924-26 (Report of the Vermont State Dairymen's Association, p. 36.)

In 1910, the Massachusetts Legislature attempted to help the farmers of that state by enacting the Saunders Law, which compelled the railroads in the state to load, unload, and ice milk, and furnish the same rate per can as for one thousand cans. The general effect of this was to send the larger dealers into northern New England where, the business being interstate, they could lease a car and bring in milk at a lower rate from a region where it could be brought more cheaply.[43] Since no action was taken by the legislatures in the northern New England states, the situation was laid before the Interstate Commerce Commission, and efforts were made to interest its members in remedying the condition.

The latter body, after many hearings early in 1916, ordered the leased car system abolished and the per-can, open-car system installed. Stop-over rights were allowed to small dealers for loading milk into iced cars in less than carload lots, and joint rates and fixed zone prices for hauling milk and cream were established.[44] After this, shipments originating equal distances from the same destination point received the same rate, without regard to their size or the number of railroad companies over whose lines they traveled. While the hill-country dairyman was now less restricted in finding a market for his production, there was little improvement in competitive purchasing, for other forces in the problem of marketing outweighed the advantages gained from these reforms.

The story of the attempts made by the dairy farmers of northern New England to secure a profitable outlet for their fluid milk colors every chronicle of the region during this period. The city dealers were constantly accused of withholding from the individual shippers, and later from the local coöpera-

[43] Boston Chamber of Commerce, *Investigation and Analysis of the Production of Milk and Cream in New England*, p. 5. This report was issued as a supplement to *Current Affairs* (Boston Chamber of Commerce), Vol. VI, No. 13 (July 26, 1915).

[44] Vermont Department of Agriculture report for 1924-1926 (Report of the Vermont State Dairymen's Association, pp. 36-37).

tive creameries as well, a fair share of what the consumer paid for milk.[45] When enough dairymen united, they were able to obtain what they demanded, but they held their vantage point only so long as they remained consolidated, and unfortunately a great many of them exhibited, if possible, an even greater aversion to concerted action than that displayed by their fellow agriculturists in other sections of the country.

Nevertheless, united efforts were undertaken, and a few of the better organized ones met with considerable success. In 1910, for example, the farmers selling milk to Boston contractors endeavored under the auspices of the Boston Coöperative Milk Producers' Company[46] to withhold their supply until they received what they regarded as a fair return for their products. Northwestern Massachusetts, southern Vermont, and southern New Hampshire joined in the hostilities. The general purpose of the struggle, which was known as the "Boston Milk War," was to maintain the winter price of milk through the summer.[47] The city required at that time a daily milk supply of about 40,000 cans, and during the first week in May the farmers managed to hold back from the dealers almost 32,000 cans.[48]

[45] In 1913, for instance, milk was selling in Boston at 9 cents a quart. According to one investigation, it cost 1.3 cents a quart to ship it from Vermont to Boston and about 2 cents to retail it, making a total transportation and distribution cost of 3.3 cents per quart. Yet the average northern New England farmer was receiving at that time only $1.55 per hundredweight, or about 3 cents a quart, out of which he had to take his production costs.—Fiske and Abbott, "The Milk Car vs. the Creamery," p. 68.

[46] This organization of milk producers was incorporated in 1904.—L. M. Davis, *A Survey of Dairy Marketing Conditions and Methods in New Hampshire*, p. 18. It succeeded the New England Milk Producers' Union, which was formed in 1886 by dairy farmers around Boston. This was an unincorporated bargaining organization, with local unions which sent delegates to the annual meeting.—McFall, *The New England Dairy Market*, pp. 28-29. The Union staged a successful struggle with the large Boston milk dealers in 1886.—Gerish, *The Commercial Structure of New England*, p. 197.

[47] *New England Homestead*, LX (April 30, 1910), 650 *et seq.*

[48] *Ibid.*, LX (May 7, 1910), 678. On the same page is a cartoon showing the city milk contractor, in a high silk hat, handing the farmer 3.5 cents a quart for milk which cost the farmer 4.5 cents. With his other hand, the contractor is receiving 9 cents for a quart of milk from a city consumer, shown as a poor

Meanwhile, a few contractors managed to get some milk from upstate New York, while others, in a determined attempt to supply their customers without yielding to the insurgents, began to import it from extra supplies in New York City, some even bringing it in by boat. "This milk," declared the *New England Homestead* gleefully, "is old enough to vote before it leaves New York City."[49] Feeling ran high among hill-country husbandmen during this crisis, and the *New England Homestead* observed in its May 14th issue that in the vicinity of Danby and Tinmouth, Vermont, a few farmers had gone so far as to threaten to poison the stock or burn the buildings of those who were still shipping milk.[50]

In the second week of the month 35,000 cans of milk, 3,000 more than the week before, were held back daily from the Boston market. Many farmers were making their milk into butter, keeping the skim milk to feed their livestock, while others were carrying their product to local butter or cheese factories, a reversion to the methods of disposal which had prevailed during the previous period.[51] The dealers began to tap the ice-cream supply of milk, and a few succeeded in procuring a small amount from the Sheffield Farms Company of New York. But on May 14 the *New England Homestead* announced exultingly, "The milk contractors are on the run."[52]

By the third week of the Milk War, the dealers were getting milk that was three days old.[53] In the fourth week, the Massachusetts legislature appointed a committee to inquire into the

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woman with a baby in her arms.

Among the larger shipping stations in New Hampshire and Vermont withholding milk from the Boston market during this "Milk War" were Wilton, N.H., 3,000 cans daily; Canaan, N.H., 2,200 cans; Pawlet, Vt., 1,000 cans, and the combined station for Windsor, Vt., and Newport, N.H., 700 cans.—*Ibid.*

[49] *Ibid.*

[50] *Ibid.*, LX (May 14, 1910), 708-9.

[51] *Ibid.*, p. 708. Such, for example, was the situation at Gassetts, Vt., on the Rutland Railroad.

[52] *Ibid.*

[53] *Ibid.*, LX (May 21, 1910), 731.

situation, and the Boston city milk inspector stated that Boston milk was now poorer than for some years past.[54] At the beginning of the fifth week, the contractors expressed their readiness to compromise and pay the winter price for a longer time, although not throughout the year, but their offer was rejected.[55] By the end of the week, the dealers assured the farmers that the winter price would be maintained, and the Boston Milk War was ended.[56]

The fruits of the victory did not last long, however. In 1911, the officers of the Boston Coöperative Milk Producers' Company, which had been one of the main sponsors of the Milk War, were indicted for violation of the Sherman Anti-Trust Act, and the coöperative association rapidly disintegrated.[57] Without a permanent, thoroughly organized union, the advantages gained by the farmers in the previous year were quickly lost, and soon the price for milk was again fluctuating between summer and winter. In addition, it was further depressed by the steadily increasing number of unorganized farmers who, in order to break into the market, were willing to sell their products at less than the current rate.

In 1913 a new organization of dairymen, called the New England Milk Producers' Association, was formed, but it was not at this time incorporated. In 1917 it was reorganized and incorporated and plans were made to finance it by the collection of a commission of one-half of one percent of the amount its members received for their products.[58] It hoped to control all the

[54] In certain cases, Bostonians were found to be drinking milk 200 times worse than the Board of Health had declared fit for use.—*Ibid.*, LX (May 28, 1910), 755.

[55] *Ibid.*, LX (June 4, 1910), 773.

[56] *Ibid.*, LX (June 11, 1910), 801.

[57] McFall, *The New England Dairy Market*, pp. 28-29; L. M. Davis, *A Survey of Dairy Marketing Conditions and Methods in New Hampshire*, pp. 42-43.

[58] Gathany, "What's the Matter with the Eastern Farmer?" p. 199; Stevens, "The Farmers' Coöperative Movement," pp. 208 *et seq.* In 1924 the income from these collections was $63,680.—McFall, *The New England Dairy Market*, pp. 28-29.

southern New England milk markets except central and western Connecticut,[59] and promised to promote the legislative interests of the dairy industry.[60] It was more of a collective bargaining agency than an organization for the coöperative marketing of fluid milk, however, for it did not handle the milk directly, but maintained committees in the important cities of southern New England which advised on the price the members should be required to ask the dealers.[61] By 1920 the association had over 20,000 members and exercised a rather loose control over 80 percent of the milk production of New England.[62] For a few years it managed to keep the price of milk fairly stable, but after the spread of the milkshed into the more remote regions of northern Vermont and southwestern Maine brought undercutting from the rapidly increasing number of independent creameries whose milk came from unorganized dairymen, it was no longer able to dominate the Massachusetts markets.

Up to the third decade of the century the majority of the coöperative creameries in the hill country turned their milk

[59] This territory was dominated by the Connecticut Milk Producers' Association, which acted as broker in the sale of milk for its members. The market was almost entirely in the hands of this well-organized association, and it gave good service to all parties interested.—Gerish, *The Commercial Structure of New England*, p. 197.

[60] McFall, *The New England Dairy Market*, p. 29.

[61] Stevens, "The Farmers' Coöperative Movement," p. 211. The association was made up of local organizations, which could be formed at any shipping point used by at least five dairymen. Locals having more than fifty members, and groups of smaller ones with a total of at least fifty shippers, sent representatives to the annual meeting of the association, where the treasurer, clerk, and directors were elected and general business transacted. There were two directors from each of the New England states and from New York state, and three at large, all having a term of two years. The directors each year elected a Boston Sales Committee which met the milk dealers monthly and negotiated prices and terms of sale. The association had a research department which obtained economic facts upon which to base prices, and publicity department which had charge of issuing the *New England Dairyman*, the official organ of the federation.—McFall, *The New England Dairy Market*, pp. 29-30.

[62] Stevens, "The Farmers' Coöperative Movement," pp. 208 *et seq.* By January, 1925, the organization had 21,000 members. In the previous year the New York Dairymen's League, which was formed in 1908 to control the New York City market, had 70,000 members.—McFall, *The New England Dairy Market*, p. 30; Vermont Department of Agriculture report for 1922-24, p. 33.

into butter and cheese, but when they found it possible to sell their milk in fluid form if they were willing to take a lower price than that demanded by the New England Milk Producers' Association, they were quick to make the change, since milk sold for such consumption often netted nearly twice as much as that which had to be manufactured into cream, butter, cheese, or other by-products.[63] As still other independent creameries entered the market, however, and as more milk became available, they were forced to lower their prices further in order to retain their customers.[64] The N.E.M.P.A. then found it necessary to reduce the rates its members were told to charge, and by 1930 the situation had become acute. The fluid milk price paid the farmers dropped one cent a quart three times between December 1, 1930, and February 1, 1931.[65] Moreover, the unusually low returns received for all manufactured forms of milk kept pushing more producers into the fluid milk market, and by December, 1931, disorganized market conditions brought the wholesale price paid to hill-country dairy farmers for milk delivered in Boston down to five cents a quart. Out of this, the producer received only a little over two and one-half cents a quart, and even with lowered expenditures for feed and for help, the average northern New England dairyman found it very difficult to make both ends meet on such a price basis. If he skimped on feed, there was a resultant shrinkage in both the quality and quantity of his production, with correspondingly lessened returns. In fact, in some months his actual cash outlay exceeded his income.[66]

To alleviate the difficulty, a super-organization of coöperatives, the New England Dairies, was formed to act as an overhead milk-marketing body and to attempt to readjust produc-

[63] Aplin, *Milk Marketing in the Boston Milk-Shed*, pp. 4-5.

[64] The products of most of the coöperatives were contracted for by the large city dealers, but a few had other sources of outlet. The Bellows Falls (Vt.) Coöperative Creamery, for instance, sold all its milk to the First National Stores in Massachusetts.

[65] Aplin, *Milk Marketing in the Boston Milk-Shed*, p. 7.

[66] *Bethel Courier*, Dec. 10, 1931, pp. 1-2.

tion to consumption. Although the N.E.M.P.A. with its large membership voted to adhere to the policies of this new body, it was never able because of the refusal of certain coöperatives which already had good outlets in Massachusetts to join the scheme, to gain sufficient control over hill-country production to stabilize the market. By January 1, 1933, the temporary contracts which it had negotiated with the Boston distributors terminated. The succeeding months witnesed decline and fluctuation in the price paid for milk, until finally the farmers turned to the Federal government for relief through the newly organized Agricultural Adjustment Administration. What voluntary action had failed to accomplish was now sought under a new code which went into effect November 3, 1933. This gave the farmers a fraction of a cent more per quart for their milk, at no increase to the consumer,[67] while other provisions in the code, it was claimed, would act as a steadying influence on the industry.[68] Few considered the code a complete solution of the problems, but it was accepted in the hope that it would end the cutthroat competition which was demoralizing the market.[69]

By the end of this period, the production of fluid dairy products had become the foremost factor in the economic security of agricultural northern New England. By 1930, almost three-fifths of the farms in Vermont, one-third of those in New Hampshire, and one-fifth of those in Maine, were depending upon dairying for 40 percent or more of their total income.[70] The majority of the farmers of the region were relying upon the

[67] *New York Times*, Nov. 12, 1933, Section E, p. 7. Up to August 10, 1933, producers had been paid 5¼ cents a quart for milk delivered at Boston; on that day, largely as a result of a lowered supply, the price was advanced to 6¼ cents a quart and the price to the consumer was put up one cent. In November the code raised the amount the farmer received to 6½ cents a quart.—*Ibid.*

[68] *E.g.*, the provision compelling all producers to share in the pooling of surplus milk.—*Ibid.*

[69] *Ibid.* Adverse court decisions on the constitutionality of the AAA so changed the situation by 1936 as to indicate a possible return to disorganized conditions.

[70] Reports of the Fifteenth Census: *Agriculture*, bulletin for Vermont, second series of bulletins, p. 5; *ibid.*, for New Hampshire, p. 5; *ibid.*, for Maine, p. 5.

monthly milk check as their most important source of cash. It paid for their taxes, their fire insurance, the interest on their mortgages, and the deposits on their automobiles. A demand for milk and cream would continue as long as southern New England remained industrial and thickly populated, and the proximity of the hill country would always give it an advantage in this market. Under these circumstances, the future seemed to offer them some assurance of a fair livelihood.

# XVII

## THE HILL COUNTRY IN RETROSPECT

*The more progressive classes of farmers . . . on the better type of farms are receiving fairly good returns for their efforts and investments, while on the other hand the occupants of land unsuited to modern methods of management and the use of labor-saving machinery are more poorly paid than ever before.*[1]

CHAPTERS X to XVI have dealt with the developments during the first three decades of the twentieth century which proved most beneficial for the maintenance of hill-country life—increasing specialization, the establishment of permanent agencies to teach the farmer better methods of agriculture, the growth of summer trade, the shift from manufactured dairy products to the production of fluid milk and cream, and the efforts to provide better marketing conditions in the dairy industry. Before concluding, it is important to investigate the question of how the region itself fared during these years. What happened to the farms? What was the trend of rural population? And finally, what was the situation at the end of the period?

### Retrenchment

The policy of curtailment continued throughout the thirty years. Only the most favorable situated farms and the acres most adaptable to cultivation were kept in use. Consequently, the amount of improved land in each state steadily diminished. In Vermont it declined 34 percent between 1900 and 1930, and in Maine 30 percent, while in New Hampshire the decrease was even greater, as that state possessed 51 percent less improved

[1] Report of the Vermont Commissioner of Agriculture in Vermont Department of Agriculture report for 1924-26, pp. 5-6.

acreage in 1930 than in 1900. The decline in the number of farms during this period furnishes an even better index of the trend toward the abandonment of agriculture in ill-suited locations. Between 1900 and 1930, one-fourth of the farms in Vermont, one-third of those in Maine, and one-half of those in New Hampshire were given up.[2]

The abandonment of farms during these three decades was a continuation of the movement begun in the previous century. A vivid picture of the vast change resulting from this process may be had from a study of the detailed maps of two representative regions, one in New Hampshire, the other in Vermont, as published in the *Geographical Review* of the American Geographical Society. The first series of maps, made by Professor James W. Goldthwait of Dartmouth College in 1925-26,[3] shows the situation in the town of Lyme, New Hampshire, in

[2] The number of acres of improved land and the number of farms, for each decade, are shown in the table. The increase in Maine between 1900 and 1910 was due to the opening of new areas, especially in Aroostook County. For the 1900 figures, see Reports of the Twelfth Census, Vol. V: *Agriculture*, pp. 692-94. For the figures for 1910 and 1920, see Reports of the Fourteenth Census, Vol. V: *Agriculture*, pp. 36-37. For 1930, see Reports of the Fifteenth Census: *Agriculture*, bulletin for Vermont, second series of bulletins, p. 5; *ibid.*, for New Hampshire, p. 5; *ibid.*, for Maine, p. 5. By following the definition used in the previous censuses, the figures for the total amount of improved land in 1930 were found by adding the amount of crop land to the number of acres of plowable pasture. All other land was classified either as woodland or rough and swampy pasture.

ACREAGE OF IMPROVED LAND AND THE NUMBER OF FARMS, NORTHERN NEW ENGLAND, 1900-1930

| | 1900 | 1910 | 1920 | 1930 |
|---|---|---|---|---|
| Number of Acres of Improved Land | | | | |
| Vermont | 2,126,624 | 1,633,965 | 1,691,595 | 1,402,196 |
| New Hampshire | 1,076,879 | 929,185 | 702,902 | 528,537 |
| Maine | 2,386,889 | 2,360,657 | 1,977,329 | 1,661,030 |
| Number of Farms | | | | |
| Vermont | 33,104 | 32,709 | 29,075 | 24,898 |
| New Hampshire | 29,324 | 27,054 | 20,523 | 14,906 |
| Maine | 59,299 | 60,016 | 48,227 | 39,006 |

[3] See Goldthwait, "A Town That Has Gone Downhill."

1830, when the population was at its maximum and all its farms were occupied; in 1860, when twenty-eight farmhouses had been abandoned; in 1892, when the entire northeastern quarter of the township had reverted to forest, and forty-five more farmhouses and eight miles of road had been given up; and in 1925, when the southeastern quarter of the town had followed in the way of the northeastern, fifty-nine additional farmhouses having become unoccupied and a few more miles of road abandoned. It was the remote hill farms which were most seriously affected. In 1839 the *Farmers' Monthly Visitor* declared, "The whole interior of the town of Lyme . . . is even more highly cultivated than the farms on the river and is one of the most profitable farming regions of the state,"[4] but in 1925, while few of the farms in the valleys had been given up, only eight of the sixty-nine farms above the 1,100 foot contour were still occupied.[5]

The second series of maps, made by the writer in the summers of 1929 and 1930, presents the extent of settlement in the Windsor, Vermont, region at two different periods.[6] The first map depicts conditions in 1869, when comparatively few farms had been deserted. At this time the country villages of Reading Center and Sheddsville, the latter in West Windsor, were thriving, and rural schools, blacksmith shops, and small woolen and woodworking factories dotted the whole district.[7] In the next six decades, however, changing conditions forced the area to curtail its activities, and brought about many differences. By 1930, most of the isolated hill farms had been given up. All of northwest Reading[8] had reverted to forest, and sections of West Windsor and Weathersfield were following suit. Little was left

[4] *Farmers' Monthly Visitor*, I (Sept. 20, 1839), 141.

[5] Goldthwait, "A Town That Has Gone Downhill," p. 550.

[6] See Wilson, "The Roads of Windsor."

[7] The material for this map was taken from Beers, *Atlas of Windsor County, Vermont.*

[8] In 1824, Zadock Thompson, Vermont historian, trenchantly observed of Reading, "It is worthy of remark that no water runs into this town."—*A Gazetteer of the State of Vermont*, p. 227.

to Sheddsville, while nothing but cellar holes and skeletons of houses marked the site of Reading Center. A large proportion of the road mileage had either become impassible or was no longer kept in repair; the blacksmith shops had yielded to the motor era; district schools had been given up; the country woolen and woodworking establishments had passed away.

Numerous factors contributed toward the continued abandonment of farms after 1900. The census returns in themselves were affected by the fact that many places which had not been cultivated for several years were no longer classifiable as farms; they had become woodland. Numbers of unoccupied farms had been consolidated with neighboring holdings and hence could not be considered as separate units. Furthermore, lumber dealers had been buying anywhere from six to fifteen farms at one time, and these could no longer be counted by the census takers as individual places.[9] This, however, was but a superficial cause of the drop in the number of farms. The decline through this period was the result of far more deep-lying causes. Most of the reasons which were discussed earlier in this study as causing the decrease during the preceding period are also applicable to the decades under consideration. Competition from the West, though in new forms, was still a menace, while the feeling of isolation—which became stronger in the outlying hill regions as neighbors kept moving away—urban attraction, and burdensome taxation continued to pull the hill farmer away from the more remote and rougher lands.

As before, the inhabitants of rural northern New England were attracted in large numbers to the cities of southern New England. The 223,000 natives of the former region living in the latter in 1900 had grown to 240,000 by 1920, an increase of over 7 percent. During the same years there was a movement from southern to northern New England, but although the increase in the number of southern New Englanders living in

[9] Report of the Census Supervisor for the Second District of New Hampshire in the Reports of the Fourteenth Census, Vol. V: *Agriculture*, pp. 12, 918.

the three northern states (from 56,000 in 1900 to 79,000 in 1920) was larger in proportion than the migration the other way, the numbers were comparatively so small that this change of residence had little influence.[10] Furthermore, many of these migrants went into the mill towns of southern New Hampshire, and not into rural territory.

As in the previous period, it was for the most part the young people who were leaving the farms and villages of the hill country for the cities. The causes for their departure were numerous and varied, but most of them can be associated, directly or indirectly, with urban attractions, and especially with the more enticing economic opportunities. In 1906 Professor L. H. Bailey of Cornell University presented a questionnaire to the students under him who had come from a farm, asking them if they were returning, and if not, why. While only a few of the persons answering the questions came from the New England hill country, the responses illustrate typical attitudes held by young people brought up on a farm and are applicable to the situation there. The reasons given by the students who replied that they planned to leave are tabulated on p. 351.

A further injurious influence of the city upon northern New England, even more evident in this than in the previous period, was its appeal to farm labor. Modern conditions made it difficult for the husbandman to secure a hired man and even harder for him to keep one. As the factory working day shortened, the hours of toil on the hill-country farm began to seem excessively long. The statistics issued in 1922 by the United States Department of Agriculture, giving the average length of day required of hired farm labor, show that the longest working days in New England were in the three northern states, particularly Vermont and New Hampshire. In the former state, for instance,

[10] Artman, *The Industrial Structure of New England*, p. 133. The increase was one of 40.6 percent, but the number of northern New Englanders living in southern New England in 1920 was three times the number of southern New Englanders who had moved into northern New England.

## REASONS GIVEN BY STUDENTS FOR LEAVING FARMS[11]

| | |
|---|---|
| **FINANCIAL** | |
| Farming does not pay—"No money in the business." | 62 |
| Difficult to acquire a farm without a start | 10 |
| Farming requires too much capital | 5 |
| Farms are mortgaged | 5 |
| Farmer cannot control prices | 2 |
| Farmer buys high and sells low | 1 |
| High taxes near the city | 1 |
| Expect to farm after making money in other business | 15 |
| **PHYSICAL** | |
| Too much hard work | 26 |
| Hours too long | 17 |
| Work too monotonous | 11 |
| Farming is drudgery | 8 |
| Work is not intellectual | 6 |
| Work is unattractive and uncongenial | 6 |
| No machinery can perform hard work on farm | 2 |
| Work too hard in old age | 1 |
| Farmer too tired to enjoy reading | 1 |
| **SOCIAL AND INTELLECTUAL** | |
| No social advantages or activities | 26 |
| More opportunity for advancement elsewhere | 14 |
| Farmer cannot be known in the world | 5 |
| Life is monotonous | 4 |
| Life is confining; no freedom | 4 |
| Association is with uncultivated people | 3 |
| Occupation is too narrow | 3 |
| Farm is isolated | 3 |
| Women are overworked on the farm | 3 |
| Farm is a physical labor only | 2 |
| People have low regard for the farmer | 2 |
| No high ideals in farming | 2 |
| No higher, nobler achievement possible | 1 |
| Education gave higher ideals and needs | 1 |
| College training unfits for farm work | 1 |
| Farmer cannot save humanity | 1 |
| Has come to know the city and likes it | 1 |
| Farmer has no political advantage | 1 |
| **MISCELLANEOUS** | |
| Natural bent elsewhere | 24 |
| Parental influence against farming | 6 |
| Teacher influenced against farming | 1 |
| Father was unsuccessful farmer | 2 |
| Home was unpleasant | 2 |
| Health not sufficient for the work | 3 |
| Difficult to secure help | 3 |

[11] Bailey, "Why Do Boys Leave the Farm?" p. 411.

the average hired man worked more than ten hours a day in every season but winter, when he toiled nine and a quarter hours.[12] It is no wonder that he was dissatisfied when he compared his day with the shorter hours enjoyed by the factory workers near by.

Want of many conveniences of living and lack of companionship also complicated the problem of finding farm help. Many a farm laborer grew restive with living as well as working on the job. In comparison, the opportunity which factory hands had of living their own life after working hours was very alluring.[13] Moreover, as contrasted with the normally steady demand for labor in the city, on the hill-country farm the need was intermittent. The demands of the haying and harvest seasons forced the farmer to procure much extra help, but in the winter he needed little outside assistance. The graph on page 353 indicates the fluctuation in the demands both upon the farmer's time and upon that of his horses, for field work on the average New England dairy farm early in the second decade of the period. It will be noted that the husbandman was busy in the field during all seasons except winter, and worked especially hard in the haying and harvest periods.[14]

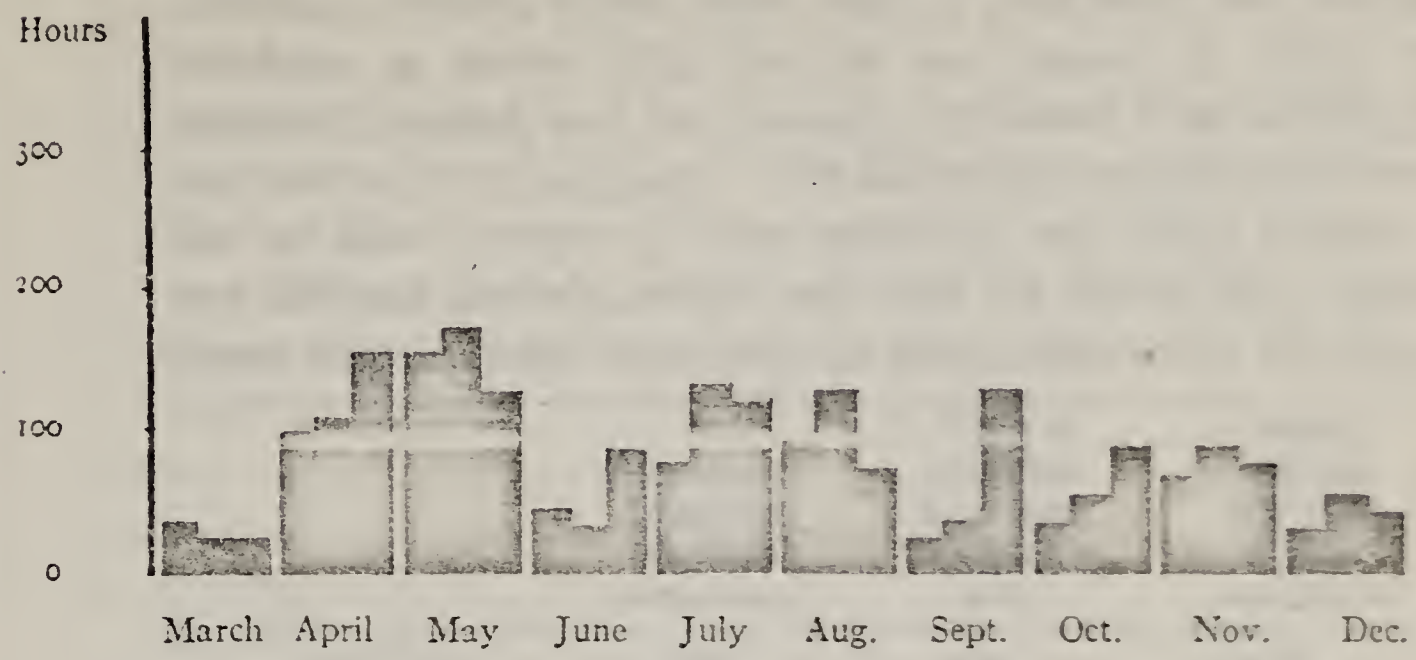
[12] The following table, from the U. S. Department of Agriculture Yearbook for 1922, p. 1075, gives the average length of day required of hired farm labor in the three northern New England states in 1922. These estimates were based upon reports of crop correspondents of the Bureau of Statistics.

| State | Spring | | Summer | | Fall | | Winter | |
|---|---|---|---|---|---|---|---|---|
| | Hrs. | Min. | Hrs. | Min. | Hrs. | Min. | Hrs. | Min. |
| Maine | 9 | 50 | 10 | 20 | 9 | 35 | 8 | 40 |
| New Hampshire | 9 | 55 | 10 | 20 | 9 | 50 | 9 | 10 |
| Vermont | 10 | 15 | 10 | 40 | 10 | 5 | 9 | 15 |

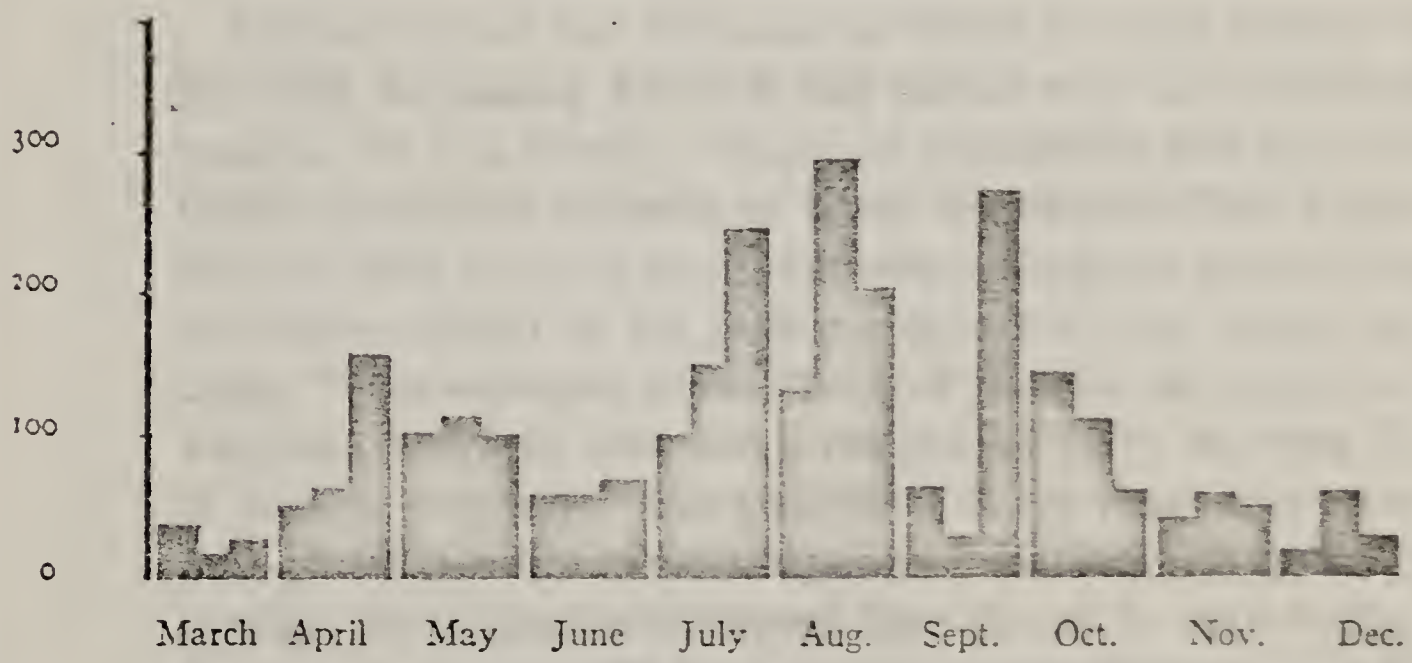
[13] Tugwell, "The Hired Man," p. 164. Another reason for the scarcity of farm labor was found in the opportunity offered the hired man to procure a farm for himself. "Provided a man had the minimum physical and psychic qualities necessary to farming success, it was not difficult for him to become a farmer on his own."—*Ibid.* See also the report of the Supervisor of the 1920 Census for the Second District of New Hampshire, Reports of the Fourteenth Census, Vol. V: *Agriculture*, pp. 12, 918.

[14] Spillman, "Seasonal Distribution of Labor on the Farm," p. 271.

A final consideration affecting the scarcity of agricultural labor was the disparity between the wages received by the hired farm worker and those obtained by the city laborer. One New




MEN




HORSES

TIME CONSUMED IN LABOR ON FIELD CROPS ON A NEW ENGLAND DAIRY FARM, 1910

The crops grown on this farm were as follows: corn, 11.35 acres; peas and oats, 14.20 acres; hay, 33.62 acres; potatoes, 1.69 acres; orchard, 2.91 acres—total, 63.77 acres.

Data from W. J. Spillman, "Seasonal Distribution of Labor on the Farm," *Yearbook of the Department of Agriculture, 1912*, p. 275.

Hampshire authority cited among the more important reasons for the marked decrease of farms in that state during the second decade of the century the relatively high wages paid in manufacturing centers, which often made it so difficult for the husbandman to secure help that he was forced to reduce the acreage operated, and was thereby prevented from securing a fair income from his place.[15] The following comparison between the net labor incomes of farm employee and urban worker, at two different periods, before and after the World War, clearly shows why so many farm laborers were attracted to the city:[16]

| | Return per farmer for labor and management | Wages of hired farm labor when board is not given | Annual earnings of workers in other occupations |
|---|---|---|---|
| 1910-14 | $482 | $351 | $ 666 |
| 1920-25 | 613 | 586 | 1399 |

Another factor the influence of which in rural decline was felt with increasing force in this period was the burdensome taxation of real estate. Decline in population and real-estate values forced the majority of towns in northern New England to raise their tax rate to a point where many an owner sought to relieve himself of his property before it was "eaten up in taxes."[17] For example, the hill town of Jamaica, in south central Vermont, which in 1900 had a tax rate of $2.70 on every $100 of taxable property,[18] was compelled thirty years later to vote a $4.50 tax in order to meet expenses.[19] In New Hampshire, the average per capita tax increased from $11.16 in 1910 to $35.31 in 1925 in towns with less than 2,000 inhabitants, and from

[15] Report of the Supervisor of the 1920 Census for the Second District of New Hampshire in the Reports of the Fourteenth Census, Vol. V: *Agriculture*, pp. 12, 918.

[16] Business Men's Committee, *Report of the Condition of Agriculture in the United States*, p. 56.

[17] Interview, July 3, 1930, with the late Guy Wilson, "lister" (appraiser) in Bethel, Vt., for the past quarter-century.

[18] G. F. Wells, "The Status of Rural Vermont, 1903," p. 83.

[19] *Bethel Courier*, March 13, 1930, p. 2.

$12.57 to $42.14 in those with a population between 2,000 and 5,000.[20] The support of the schools was particularly oppressive to the thinly populated back-hill towns. John M. Thomas, then President of Middlebury College, pointed out in 1913 that a large proportion of the small towns in Vermont were paying higher school taxes than the two biggest cities. "In the back mountain towns," he explained, "the population is less than it used to be, the valuation of property is less, the timber has been cut off, and the burden of community support falls with increasing weight upon a diminishing number."[21]

It was not until the latter part of this period that definite attempts were made to lessen the tax load on the hill-country farmers. In the late twenties, both New Hampshire and Vermont dallied with the idea of a state income tax in an endeavor to divert the weight of taxation to people more capable of paying. The New Hampshire Tax Commission in February, 1930, recommended "a tax on the franchise of gas and electric utilities and a tax on personal and corporate incomes," proposing to "shift the burden from the overtaxed communities and interests to the undertaxed trade centres and interests."[22] When the New Hampshire Legislators met in special session that same month, however, they rejected the entire program. Bills providing for levying a tax on personal and corporate incomes were killed, while the only feature of the Commission's program which held promise of passage, a bill providing for a tax on franchises of gas and electric utilities, was thrown into discard by the scant margin of a single vote.[23]

In Vermont, a Tax Commission especially appointed by the Governor recommended in 1930 a modified form of state income tax, which passed the Legislature in 1931, but only after a protracted struggle.[24] While the proponents of this bill averred

[20] Rossiter, "New Hampshire, Past, Present, and Future," p. 179.
[21] Thomas, *The Idealization of the Near*, p. 15.
[22] *Boston Herald*, Feb. 8, 1930, p. 3.
[23] *Ibid.*, Feb. 28, 1930, p. 6.
[24] *Bethel Courier*, Jan. 14, 1932, p. 2. Discussion of the intricacies of the law.

it would reduce to some extent the farmer's tax burden, others believed it of doubtful value.

A further influence affecting the decrease in the number of farms in the last decade of the period, particularly in Vermont, was the flood of 1927. The owners of hill farms who had been envious of those living on the valley sites were very thankful in November of that year that their lands were high and dry, for at the beginning of the month there occurred the worst flood in the history of the region. The ground was already well saturated from the heavy rains of October and when a downpour of unusual proportions fell steadily for two days, the run-off was rapid.[25] The rivers in the narrow valleys rose so quickly that there was no time for the inhabitants to save their movable property or their livestock, or in some cases, themselves. Eighty-four people were drowned in Vermont, and a few lives were lost in New Hampshire and western Massachusetts. The sections suffering most were the valleys of the White and the Winooski Rivers in Vermont, but the damage was also heavy in the Connecticut valley, the Lake Champlain drainage basin, and the basins of streams in western New Hampshire and Massachusetts.[26]

In considering the effects of the flood in his biennial report in 1928, the Vermont Commissioner of Agriculture noted that probably nothing had occurred during the history of the state which had dealt such a staggering blow to the agricultural industries of Vermont. A survey of the state made soon after the disaster calculated that the damage to farm property alone amounted to $1,350,000, but conditions in the following spring made it apparent that this estimate was a conservative one, and that $2,000,000 was more nearly correct.[27]

[25] *Ibid.*, Feb. 27, 1930, pp. 1, 4. The greatest officially recorded rainfall for the storm was at Somerset, in southern Vermont, on the backbone of the Green Mountain range, where the total precipitation was 9.65 inches. It is probable that considerably larger amounts of rain fell in the higher portions of the Green Mountains, where no records could be obtained.—*Ibid.*

[26] *Ibid.*

[27] E. H. Jones, "Report of the Commissioner of Agriculture," pp. 6-7. Of the

From the viewpoint of rehabilitation, the land damages were the most serious. Buildings might be replaced, and livestock purchased or restored by natural increase, but a considerable amount of land bordering the streams was a permanent loss. Many acres of fertile valley soil were completely washed away, and much larger areas were covered with silt, sand, gravel, stones, and debris in depths varying from a few inches to several feet. The silt-deposited acres were not seriously harmed, they had only to be plowed and reseeded; but the expense of clearing lands deeply covered with sand and gravel was frequently more than they were worth.[28] In some cases where valley farms were covered extensively by this sort of sediment, their owners gave them up, often selling what remained to a neighbor. Similar consolidations of adjoining places occurred if the buildings of one, or a large portion of the tillage land of both, had been washed away.

For many decades the valley farms had been regarded as being the most favorably situated, but immediately after the flood the hill-country husbandman, his vision filled with pictures of silt-covered, gravel-strewn, debris-laden riverside meadows, looked upon the highlands in a new light. One Vermont farmer, who in 1926 had moved from his home in the upland Lillieville neighborhood in the town of Bethel to a farm in the same township lying along the bank of the White River, remarked,[29] "I wish'd I'd never left th' hill place; that's high 'n' dry naow—'n' look at this!" But this feeling was not of long duration. By 1930 the scars left by the torrents had been healed. New roads and bridges had been built, new roadbeds for the railroads constructed, and most of the valley farms

farm buildings seriously damaged or swept away, the houses numbered 187; the barns, 200; and other buildings, 257. There were drowned 1,704 head of cattle, 202 sheep, 469 swine, and 7,215 chickens, and 7,056 acres of farm land in the state were either covered with flood deposit or washed away.—*Ibid.*

[28] *Ibid.*

[29] To the writer's father.

cleared of the barren alluvium.[30] It was evident that even though the low-lying valley places might be subject to occasional deluges, their favorable location would insure their continued occupancy.

The effects of retrenchment had been felt for the most part only by the economically unprofitable farms. A study of a few representative cases in New Hampshire and Vermont will show the difference between the good farms and the bad ones, and make it clearer why some were able to survive while others were abandoned.

### The Submarginal Farm

Whether or not a farmer was successful was, of course, determined very largely by the quality and location of his land. The first essential was that the farm should be good, not only in its productive capacity, but also in respect to roads, markets, and nearness to a community. If its acres were rough and stony, or even rolling and fertile, but inaccessible and isolated, it was headed for abandonment.[31] An observer writing in 1911 from a central New Hampshire hill town whose population had declined over 50 percent in the last half of the nineteenth century, and 25 percent more in the first decade of the twentieth, noted two classes of farmers in the vicinity, those "who work hard and win only a meager living, for they are on land where it is almost impossible for anyone to make a decent living," and those "who would be accounted prosperous even in the West; who live as well and make as much money as well-to-do farmers in Wisconsin, Illinois, or Missouri."[32]

The difference in the income yielded by the good farm and the submarginal one was investigated in two surveys made at the end of the first decade of the century by the Bureau of

[30] E. H. Jones, Vermont Commissioner of Agriculture, on "Vermont Rides Out of the Flood," in Commissioners of Agriculture of the Six New England States, *The Tercentenary of New England Agriculture, 1630-1930*, pp. 16-17.

[31] "It is impossible," declared one authority in 1932, "for average men to make a decent living on farms that are too small or too broken, or where the soil is poor."—I. G. Davis, "Agricultural Production in New England," p. 140.

[32] Curtis, "A Prosperous New Hampshire Farmer," p. 138.

Farm Management of the Federal Department of Agriculture. Two representative regions in New Hampshire were chosen, one in the south central part of the state, in the towns east of Concord,[33] the other in the northwest section, in the region near Woodsville.[34] More than four hundred farms were studied, from which were selected the one hundred that were doing the best and the one hundred doing the poorest. The best were returning an average of $830 a year for the farmer's time in addition to 5 percent on his investment. The poorest were falling short of paying the interest on the investment by an average of $305 annually. In other words, the owners of these farms were really paying $305 for the privilege of working hard for a whole year.[35]

The average size of the best farms was 203 acres, and of the poorest, 185 acres, although in tillable land the difference in favor of the former was only 6 acres. The best farms were receiving 50 percent more from their crop sales than the poorest, and twice as much from their dairy products. The following table plainly shows the disparity of income between the two groups:[36]

DISPARITY OF INCOME, GOOD AND SUBMARGINAL FARMS

| Source of income | Average of the one hundred best farms | Average of the one hundred poorest farms |
|---|---|---|
| Sales of crops | $ 347 | $232 |
| Net stock sales | 260 | 125 |
| Stock products sold, including milk and butter | 1389 | 600 |
| Increased inventory at end of year | 184 | 3 |
| Outside labor of men and team | 138 | 32 |
| | $2318 | $992 |

[33] See E. H. Thompson, *Agricultural Survey of Four Townships in Southern New Hampshire.* The four towns, all in Hillsborough County, were Hollis, Amherst, Milford, and Lyndeborough. The inquiry was made in 1909.—*Ibid.*, p. 4.

[34] See Robertson, *Some Profitable and Unprofitable Farms in New Hampshire.*

[35] Dodge, "The Influences on Farm Management of Some New England Conditions," p. 85. The author was Director of the Federal Office of Farm Management at Washington.

[36] *Ibid.*

It is evident from these figures that the New Hampshire farmer could scarcely afford to continue to live on the poorest places.

Similar discrepancies existed in Vermont between profitable and unprofitable farms. While few good locations were deserted during this period, the owners of the poorer places one after the other gave up the struggle with their rough and rocky acres. A survey made by the writer in 1930 of nine farms in this state, in a region typical of the poorer farm land in northern New England, gives a representative picture of the movement from submarginal areas between 1900 and 1930 and demonstrates the wholesale fashion in which the poorer farms were returning to the forest. These farms lay near the geographic center of Vermont, in the township of Bethel, on a cross road leading from the valley of the Lillieville Brook over the hill to that of Camp Brook. The road leaves 'Lympus Four Corners,[37] climbs a steep hill, wanders over a heavily rolling area, and then drops down a precipitous grade into the Camp Brook valley. Four of the farms along it were abandoned in this period, while one was given up earlier, all five being smaller and on land more difficult to till than those which were still occupied. In the summer of 1930, the writer drove over this district. His father, Town Clerk of Bethel and thoroughly acquainted with the history of each farm and its occupants, accompanied him and gave a detailed account of every place.

The first farm was the Bert Sawyer place, "about fifty acres of poor, scraggly, rough land." It had changed hands several times since the turn of the century, but no one had been able to make a living on it. The last occupant, Oren F. Luce,[38] was forced to give it up in the middle twenties by foreclosure pro-

[37] The local people long ago dropped the first syllable. Here a little Methodist Episcopal Church and a district schoolhouse form a small community center. As noted earlier, this neighborhood received considerable publicity in the first decade of the century when Little, Brown and Company published Mary E. Waller's best-seller, *The Woodcarver of 'Lympus.*

[38] The names of the persons and of the farms referred to in this section are fictitious.

ceedings on a mortgage of about $300, held by a neighbor who lived across the road. The former owner then went to work as hired man for Miss Miranda White, who owned a farm farther down on the steep Camp Brook hill.

The second farm was occupied, although much of its rolling meadow land raised more daisies than hay. The third, the Silas C. Burnett place, contained approximately 142 acres and was deserted. The owner's father had gained a fair livelihood by working hard and counting every penny. When he died, the son, of a more easygoing nature, inherited the place. After the death of his wife, his daughter, the only child, kept house for him until the latter part of the second decade of the century, when she married a farmer who lived down on the Camp Brook road. Following this, the father closed up his house and moved to live with her.

The next two farms were also deserted, the first one having been given up in the early twenties and the second in the latter part of the nineteenth century. Each contained about 65 acres and had once belonged to two members of the Chase family—James, Senior, and James, Junior. The former was a veteran of the Civil War, and by supplementing his income with pension money, was able to carry on the place until his death in the late nineties. The house was then abandoned and his widow went to live with the son on the adjoining farm. The son, however, could not make a success of the united farms, and after his mother's death moved his family to Bethel village, where he found employment as a laborer, and his wife as a housekeeper. Both places were unproductive, but, observed the writer's companion, "it was as much the man as the farm."

The sixth farm, the best one on this crossroad, was fairly prosperous. Its improved acres were rolling, but not rough, and its buildings were well kept up. The next place, however, was unoccupied. It contained about 100 acres and had been bought in the nineties by Christopher E. Campbell, a "hard-working,

honest, Methodist citizen," who was "hounded by hard luck." His wife dying of consumption, he finally sold the farm to his son, who was not able to make a living from it. In the twenties, the son moved to West Windsor, Vermont, where he purchased another farm, selling the old home place to a neighboring farmer living on another crossroad, who bought it to "wreck it for timber."

Both of the remaining farms were occupied, but neither was yielding a decent livelihood, and there was little possibility that they would be permanently kept from the forest. Indeed, the woods were creeping close to the Jim Brigham farmhouse, while a large portion of the barn on the neighboring farm was returning to the earth from which it came.

This last farm, a property of about 130 acres, was known as the Miranda B. White place. Miss White had come into the vicinity over twenty years previously, bringing with her $3,000 saved from years of school teaching, and a "retainer" named Walter Twitchell. She bought a farm in the upper reaches of Camp Brook, but kept going downhill financially. After a few years, she traded it for this place, to which she moved, taking Twitchell with her. This farm, too, did not pay, and soon she was forced to mortgage it for $600. In the early twenties, Twitchell died, whereupon Miss White secured the services of the Oren Luce who had been unable to keep farm No. 1 going. "Oren was in his middle fifties and Miranda in her forties," explained the writer's informant. Her financial condition growing steadily worse, the village hardware dealer, who held the mortgage, became worried. At this point, Oren unexpectedly inherited about $400 and let it be known that he was willing to assist Miranda if she would give him an interest in the place. But even after Miranda had married Oren and the mortgage had been reduced by two-thirds, her fortunes continued to decline.

A further illustration of the rapidity of the abandonment of

farms in isolated hill regions can be found in the preliminary report issued in 1930 by the Committee on Land Utilization of the Vermont Commission on Country Life. This committee studied conditions in thirteen of the one hundred towns which line the backbone of the Green Mountains—Fayston, Warren, Roxbury, Ripton, Granville, Goshen, Pittsfield, Stockbridge, Sherburne, Shrewsbury, Plymouth,[39] Mt. Holly, and Wardsboro, all in remote hill sections where poor farming conditions prevailed. The population of these towns had been shrinking steadily since the middle of the nineteenth century, and the decline was particularly pronounced during the 1920's. By 1919, less than 70 per cent of the farms once occupied, 959 out of 1,375, were being operated. Between 1919 and 1929, 51 of the 959 were deserted, and in the latter year, 211 of the remainder were not being cultivated, while it was reported that only one in eight of the rest had sufficient acreage to enable the securing of a satisfactory living from farming alone.[40]

One hundred and sixty-two representative farms in these towns were studied more closely by the Committee, and it was found that the average income above the expense of operation and what living could be secured from them was $598 a year. While this was larger than in the submarginal areas of certain other states, especially in the mountains of Kentucky and Tennessee, the people on these hill places were accustomed to a higher standard of living than the southern mountaineers. The $598 income did not satisfy them, and they were quick to give up their farms if any better opportunity presented itself.[41] This

[39] The birthplace of Calvin Coolidge.

[40] Report of the Committee on Land Utilization in the *News Letter* of the Vermont Commission on Country Life, July, 1930. The majority of the farms whose improved land had been used in 1919 only for hay or as pasture were given up in this decade.—*Ibid.*

[41] Final report of the Committee on Land Utilization of the Vermont Commission on Country Life in the *Burlington Free Press*, June 18, 1931, p. 5. These thirteen hill towns contained 26,000 acres of open land which, in the judgment of the Committee, should be reforested (*News Letter*, July, 1030). The report asserted that the responsibility for the solution of the hill-town problem

type of hill land was well-suited to the growth of timber, or for the location of summer homes, but it could not be farmed successfully as long as the average net income was so low.[42]

In this discussion of the continued occupancy of submarginal farms, it should be pointed out that location alone did not necessarily compel the abandonment of a remote place. A few thrifty, hard-working husbandmen, immune to the fires of high ambition, surmounted the difficulties of isolation and great distance from markets, and made a comfortable and certain, though by no means enviable, living. For instance, the writer has visited many times a farm which has the highest elevation of any ever existing in the township of Bethel, Vermont. The place lies in a cup of intervale land, surrounded by hills on all sides but one, and is at the end of the road. For the last three decades the fringe of civilization has been sliding away from it, leaving six abandoned homesteads between it and the first occupied farm down Camp Brook valley. Although the nearest neighbors are now miles away, the owner has clung tenaciously to his patrimony. By frugal living and hard work, he has kept the place going. It has been his perseverance, however, that has held him on this land, not that the farm is economically profitable or that he is receiving a fair return for his labor.

Outlying locations like this, separated from other occupied

should be assumed by the state. It was recommended that a permanent land utilization committee, composed of the state Commissioner of Forestry, the state Commissioner of Agriculture, an agricultural economist, and two other interested people, should take up this problem town by town and try to settle it. It was believed that in many cases this would result in the state's purchasing the land for reforestation purposes, thus allowing the farmers stranded on submarginal hill lands to move to better farming communities and get a new start.—*Burlington Free Press,* June 18, 1931, p. 5.

[42] "If this land is to be farmed," stated the Committee on Land Utilization, "dairying is the logical type of farming, but there is not enough land to make a living at dairying. Nearly every other type of farming has been tried on these farms at various times without profit. It is apparent, therefore, that there must be some other source of income to supplement the farm income if the people are to make a satisfactory living. The only apparent source is lumbering and woodworking."—*Ibid.*

places by wide tracts of land no longer in agricultural use, lack every opportunity for social intercourse necessary to make farm life attractive. They are an obstacle to coöperation among husbandmen, to supervision by county and community agents, and to the development of the use of electrical power.[43] Examples of such determined persistence to work land better suited under modern conditions for growing timber instead of crops, however, are the exception instead of the rule. The demise of most farms poor either in soil and contour, or in location, is only a question of time.

### The Trend of Population, 1900-1930

The decrease in occupied farms during these three decades caused a drop in the number of persons gainfully employed in agriculture. Between 1900 and 1930 the people classified in this category declined 23 percent in Vermont, 28 percent in New Hampshire, and 33 percent in Maine.[44] By the end of the period, the proportion of people earning a livelihood from farming was only a fraction of those so employed a century or more earlier. In 1820 almost five-sixths of the workers in northern New England found their living in agriculture,[45] while in 1930 less than one-eighth of those gainfully employed in New Hampshire, about one-sixth of those in Maine, and a few more than

[43] Business Men's Committee, *Report on the Condition of Agriculture in the United States*, p. 218.

[44] Reports of the Twelfth Census, Vol. II: *Population*, pp. cxxxv-cxxxix; Reports of the Fifteenth Census: *Population*, Vol. III, pp. 161, 1125; Reports of the Fifteenth Census: *Population*, bulletin for Maine, second series of bulletins, p. 3. In Vermont the drop was from 49,820 to 38,141; in New Hampshire, from 30,782 to 22,091; in Maine from 76,923 to 51,519.

[45] The 1820 employment figures for New Hampshire and Vermont, according to the Report of the Fourth Census, pp. 5-6, were as follows:

| Workers | New Hampshire | Vermont |
|---|---|---|
| Engaged in agriculture | 53,384 | 50,951 |
| Engaged in commerce | 1,068 | 776 |
| Engaged in manufacturing | 8,699 | 8,484 |

one-fourth of those in Vermont were engaged in it.[46]

The results of this decrease are plainly visible in the steady decline of the rural population in the hill country. In 1900, almost 80 percent of the inhabitants of Vermont came under this category; in 1910, 72 percent; in 1920, 68 percent; and in 1930, 67 percent.[47] New Hampshire's rural population comprised 45 percent of the total in 1900; 41 percent in 1910; 37 percent in 1920; and, as a result of a change in classification made by the Federal census,[48] 41 percent in 1930; while in Maine this group amounted to 67 percent of the total number of inhabitants in 1900; 65 percent in 1910; 61 percent in 1920; and 58 percent in 1930.[49]

[46] Reports of the Fifteenth Census: *Population,* Vol. III, pp. 161, 1125; bulletin for Maine, second series of bulletins, p. 3. In New Hampshire, 22,091 out of 192,671; in Maine, 51,519 out of 308,617; in Vermont, 38,141 out of 141,190.

[47] In exact numbers, Vermont's rural population dropped from 267,810 in 1900 to 257,039 in 1910, 242,452 in 1920, and 240,845 in 1930, while the urban population rose from 75,831 in 1900 to 98,917 in 1910, 109,976 in 1920, and 118,766 in 1930.—Reports of the Fifteenth Census: *Population,* Vol. III, p. 117.

[48] Up to the taking of the 1930 Census, the entire population of every town in New England having more than 2,500 people was classified as urban.—Truesdell, *Farm Population in the United States,* pp. 31, 179. This frequently made the percentage of rural population appear smaller than it really was, for a family might live on a farm under strictly rural conditions, and yet, if the township in which they dwelt had over 2,500 inhabitants, be numbered among the urban residents. This method still obtained in classifying population in Vermont and in Maine in the 1930 Census, but in New Hampshire the urban classification was cut down so as to include, in addition to the regularly incorporated cities, only those towns in which there was a village or thickly settled area having more than 2,500 inhabitants and comprising, either by itself or when combined with other villages in the same town, more than 50 percent of the total population. This change resulted in the transfer from the urban to the rural category of twelve towns (population 35,389), which would have been counted as urban if the 1920 rule had been followed.—Reports of the Fifteenth Census: *Population,* Vol. III, p. 1.

[49] The exact figures for the rural population of New Hampshire for these years are: 185,319 in 1900; 175,473 in 1910; 163,322 in 1920; and 192,214 in 1930. The urban population steadily increased until the change of classification in 1930, mounting from 226,260 in 1900 to 255,199 in 1910, and 279,761 in 1920. In 1930, mainly because of the different interpretation of urban population in New Hampshire, it fell to 273,079.—Reports of the Fifteenth Census: *Population,* Vol. III, p. 153. The rural population of Maine compared with the urban

The decreases in New Hampshire and Vermont are portrayed in the map on p. 369, which pictures the trend of population in these two states between 1900 and 1930. In New Hampshire, the area losing steadily in numbers was somewhat smaller in these decades than in the last thirty years of the nineteenth century. Sixty-seven towns in this state dropped at every census between 1900 and 1930, while seventy-five shrank constantly between 1870 and 1900. Fewer localities in the central and southern portions of the state were in this category in these last years, but in the northern part of the opposite was true. None in Coos County, the northernmost in the state, declined steadily from 1870 to 1900, but in the three following decades four—Columbia, Stark, Milan, and Jefferson—registered fewer inhabitants at each enumeration, while several which had gained constantly in the preceding period lost in one decade or another of this period.

In contrast to New Hampshire, the amount of Vermont territory reporting diminishing returns at each census was slightly larger in these three decades than in the thirty years preceding 1900. Eighty-eight towns shrank steadily in residents in this period, as contrasted with eighty-six in the previous one, while ninety-four towns reported losses at two enumerations during these years and ninety-two in the earlier period. As in New Hampshire, the towns in the northern section of the state suffered more heavily than those in the southern portion. The twenty-seven towns north of Monkton which lost continuously between 1870 and 1900 mounted to thirty-two in this period. In Essex County, in the northeastern part of the state, the last section to be settled, four towns dropped constantly in these years, in contrast to one in the preceding thirty years, while in neighboring Orleans County eight towns came under this

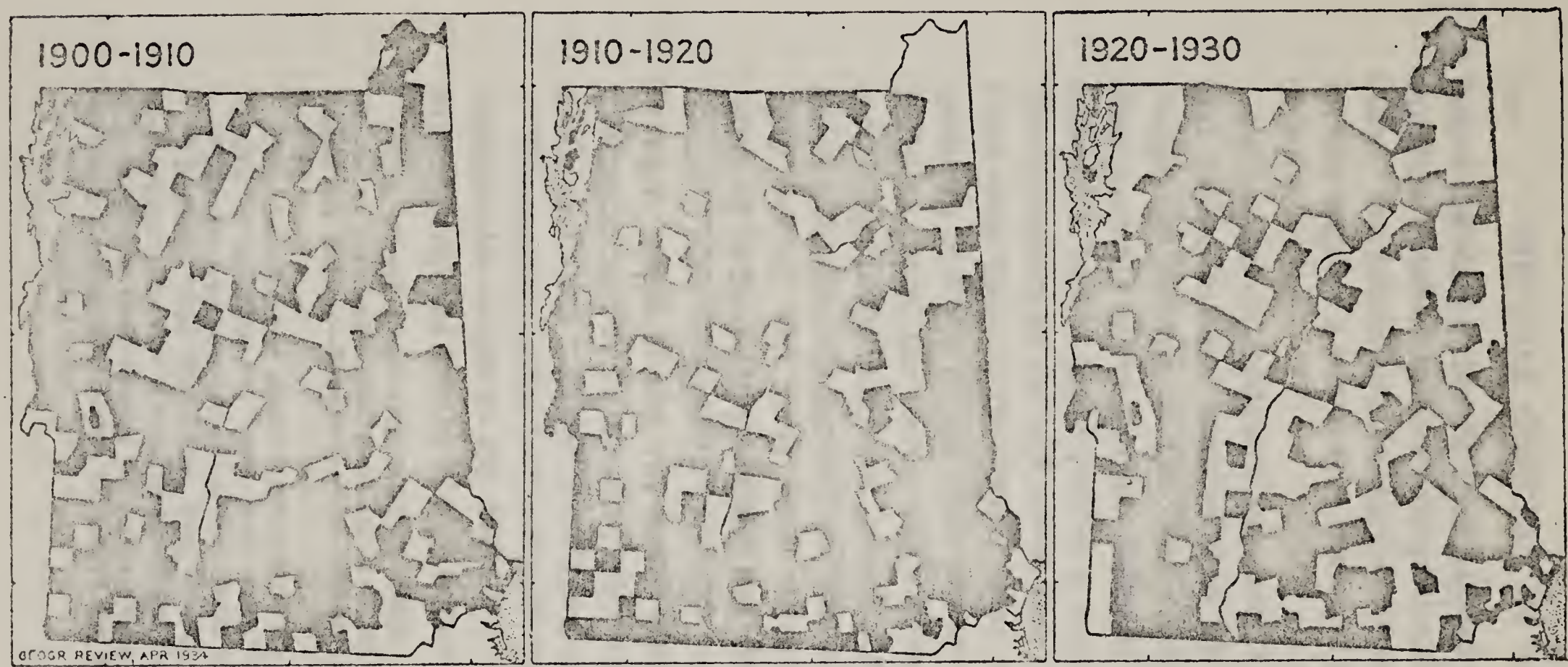
population as follows: 1900, 461,639 rural and 232,827 urban; 1910, 480,123 and 262,248; 1920, 468,455 and 299,569; and 1930, 475,917 and 321,506.—Reports of the Fifteenth Census: *Population*, bulletin for Maine, second series of bulletins, p. 3.

classification at this time as against six between 1870 and 1900.

One of the noticeable features of the series of maps for Vermont for these years is the strip of towns lying along the backbone of the Green Mountain range, which for the first time reported decreases in population for every census report of the period. This stretch of territory, running through the center of the state from the Massachusetts line north to the Canadian border, reached its maximum population late, and was now the worst off of any portion of the state. Beginning on the Massachusetts line at Stamford and Whitingham, and going north along the main range of the Green Mountains the following towns registered losses at every census between 1900 and 1930: Searsburg, Dover, Wardsboro, Winhall, Peru, Weston, Mt. Holly, Plymouth, Mendon, Sherburne, Chittenden, Pittsfield, Goshen, Ripton, Granville, Lincoln, Warren, Starksboro, Fayston, Duxbury, Bolton, Jericho, Underhill, Waterville, Bakersfield, Montgomery, Westfield, and finally, Jay, on the Canadian border. The only town in this section to grow was Hancock, near the center of the state, whose numbers mounted slowly but steadily in these three decades, thanks to the employment offered by a small wood-working establishment.[50] As in the previous period, the group of towns in west central Vermont bordering on Lake Champlain reported a lower number of inhabitants at each census; none of them possessed industries to maintain a stable population and the loss sustained when each submarginal farm became unoccupied could not be made up by additions to the non-agricultural residents.

As the map on page 369 shows, at no enumeration in this period did any of the really rural regions in either Vermont or New Hampshire, gain in inhabitants. In the first ten years of the twentieth century, more than two-thirds of the towns in Vermont declined in number of residents, although, thanks to the growth of the cities and the larger towns, the total popula-

[50] Hancock's population fell from 472 in 1830 to 253 in 1900, but rose to 287 in 1910, 300 in 1920, and 303 in 1930.




POPULATION TRENDS BY TOWNSHIPS IN NEW HAMPSHIRE AND VERMONT, 1900-1930

Townships that have suffered loss of population are in solid black.

tion of the state increased from 343,641 to 353,956.[51] The same situation obtained in New Hampshire, where four-fifths of the towns[52] lost inhabitants during these years, although the returns for the state as a whole rose from 411,588 in 1900 to 430,572 in 1910.

In the second decade of the century, Vermont experienced the first decline in total population in her history as a state, although the increase of 136 from 1880 to 1890 had been less than one-tenth of one percent. Between 1910 and 1920 the state suffered a loss of 3,528 people, a drop of about one percent. Three-quarters of the 238 towns had fewer inhabitants in the latter year than in the former, and only 58 towns reported gains, 12 of these of less than one person per year. In a majority of cases, the towns which grew were those possessing sustaining village industries; practically every one whose population was primarily agricultural showed heavy decreases in the 1920 returns, and many small villages whose industries had fallen off in these ten years also lost. Seventy-six percent of the towns in New Hampshire[53] showed fewer people in 1920 than in 1910, while of the 167 towns having less than 2,000 inhabitants, 137, or 82 percent, reported a drop,[54] although the total population mounted from 430,572 to 443,083.

The greater decline in this decade was undoubtedly due to a considerable extent to the migration toward industrial centers arising from the World War. Vermont had few cities, and no

[51] Out of 238 towns (not including cities), 167 lost in poulation. In this decade, 75 towns and cities grew, but 9 of the former increased less than one person per annum.—Reports of the Fifteenth Census: *Population*, Vol. III, p. 1111.

[52] One hundred and eighty towns out of 224, not including 11 cities, and 8 "grants," 6 "purchases," 6 "townships," and 3 "locations," in Coos County.

[53] One hundred and seventy-one out of the 224.

[54] Rossiter, "New Hampshire, Past, Present, and Future," p. 178. In the period 1900-1920, New Hampshire towns and cities of more than 5,000 population showed a total increase of 54,234; those of 2,000 to 5,000 population showed a decrease from 61,899 to 60,617; and those under 2,000 dropped from 166,437 to 144,980.—*Ibid.*

large ones, while in New Hampshire only parts of the southern portion were predominantly urban, but both lay at the very door of a great manufacturing territory. The routine of factory and office employment seemed to many preferable to the varied and innumerable tasks of farm work, and the high wages and abnormal demand for workers during the war period called large numbers from the New England hill country. In addition, just as many soldiers went West after the Civil War instead of going back to the northern New England farms, so in 1919, a large number of the discharged men decided to remain in the cities rather than return to the land.[55]

In the last decade of the period fewer towns in Vermont dropped in population than in the previous ten years, 64 percent reporting a smaller number of inhabitants in 1930 than in 1920, while in New Hampshire only 49 percent lost in residents,[56] most of them situated in the rougher, hillier regions of the state.

During this decade many towns in northern New England which had hitherto been losing experienced a rise in inhabitants. This was due in most cases to an increase in the village population. Frequently elderly couples closed up the home place and moved into a near-by community when it was no longer possible for the old man to carry on the farm. The unemployment following the depression of the early twenties and the more severe one of the early thirties also brought people into the

[55] Rossiter, *Increase in the Population of the United States, 1910-1920*, p. 49. The Supervisor of the 1920 Census for Massachusetts wrote in explanation of the diminishing number of farms in that state during this decade that apparently the main cause for farm abandonment was the World War, during which farmer boys and farm hands were induced to come to the cities, where, with shorter hours and easier work, they could earn more money than they were able to when on the farms. He added that the farmers who went away left the farms in charge of old people who were gradually dying off and that the farms were being abandoned.—Reports of the Fourteenth Census, Vol. V: *Agriculture*, p. 918.

[56] One hundred and eleven out of the 224, cities not included. Two cities, Somersworth and Manchester, lost in population during this decade. Fourteen towns were either stationary or gained less than one person per annum, while ten towns in Vermont came under this category during this decade.

little rural villages. In some cases city families came to stay with relatives until times were better, while in others they moved to the country because rents were cheaper and it was possible to raise a part of their food. Indeed, the considerable growth in the number of people living under predominantly rural conditions, although not on a farm, was a pronounced trend in the population movement of the hill country between 1920 and 1930. In the returns of the census for these last two dates, the rural population for the first time was broken into two classes. In the rural, non-farm category were placed all persons living in a township of 2,500 or less inhabitants but not on a farm.[57] In Vermont this group increased 9 percent during the decade, and in Maine, 12 percent, while in New Hampshire it rose 39 percent. On the other hand, the rural-farm population dropped in these ten years, falling 15 percent in both New Hampshire and Maine and 11 percent in Vermont.[58]

It is significant that although the number of abandoned farms in the hill country mounted steadily during the first three decades of the twentieth century, the percentage of towns losing in population fell, with the exception of a fluctuation in Vermont in the second decade of the period. Of importance, too, is the possibility that a number of localities may have reached their minimum population. A group of towns in both New Hampshire and Vermont which had shrunk consistently since

[57] Hence, in a hamlet or a village.

[58] The following table (based on the Reports of the Fifteenth Census: *Population*, Vol. III, pp. 153, 1117; Reports of the Fifteenth Census: *Population*, bulletin for Maine, second series of bulletins, p. 3) gives these differences in exact numbers:

RURAL POPULATION, NORTHERN NEW ENGLAND, 1920-30

| | Rural non-farm population | | Rural farm population | |
|---|---|---|---|---|
| | 1020 | 1930 | 1020 | 1030 |
| Maine | 270,419 | 314,488 | 189,026 | 161,429 |
| New Hampshire | 98,715 | 137,303 | 64,607 | 54,911 |
| Vermont | 118,007 | 128,947 | 124,445 | 111,898 |

reaching their maximum growth, in the majority of cases before the middle of the last century, now for the first time showed renewed vigor. Between 1920 and 1930, for instance, such consistent "losers" in Vermont as Shoreham in Addison County, Hinesburg in Chittenden County, Fairfax and Fletcher in Franklin County, Rupert in Bennington County, Norwich in Windsor County, Jamaica in Windham County, Cabot in Washington County, and Washington in Orange County registered slight increases. A similar situation obtained in a number of New Hampshire towns which had long been in a decline; such towns as Tamworth in Carroll County, Sanbornton in Belknap County, Groton in Grafton County, Bradford in Merrimack County, Kensington in Rockingham County, Deering in Hillsborough County, Gilsum in Cheshire County, and Acworth in Sullivan County reported small gains in this decade. While it is still too early to prophesy with certainty, the high point in the decline of rural population in the hill country seems to have been reached, and, as the region becomes still further adjusted to modern conditions, it is probable that the number of inhabitants will tend to remain fairly stationary.

## The End of the Period

By 1930 northern New England had made extensive progress in adapting itself to the changed situation. Economic necessity had forced the abandonment of rough, small, and inaccessible hill farms, and had compelled the more favorably situated to adopt more specialized types of production. This shift had not been completed by the end of this period; submarginal farms were still occupied, but it was only a question of time before most of them would be given up to the forest, or, in a few cases, sold to summer residents.

The region had undergone a vast change during the preceding century. In 1830, practically every farm in the territory had been almost entirely self-sufficing, and their owners had

bought little from outside. One hundred years later, however, only 12 percent of the farms in New Hampshire and 10 percent of those in Maine could be considered as of this nature, while in Vermont the proportion was but 6 percent. In 1930, a general type of husbandry, where the value of any single product was less than 40 percent of the total value of all the products of the farm, was followed on only 10 per cent of the farms in Vermont, 15 percent of those in New Hampshire, and 19 percent of those in Maine. On the remaining farms in these states, the operators were relying on some specialized form of production for 40 percent or more of their total income. Almost 58 percent of all the farms in Vermont, 29 percent of those in New Hampshire, and 17 percent of those in Maine were thus classified as dairy farms, two-fifths or more of whose earnings came from the sale of milk, cream, butterfat, butter, dairy cows, and calves. Thirteen percent of the farms in Vermont, 16 percent of those in New Hampshire, and the same proportion in Maine were listed as part-time farms, whose operators depended on an outside source for the main part of their income and spent 150 or more days of the year working either on another farm or at some occupation other than agriculture.[59] Three percent of the farms in Vermont, the same in New Hampshire, and 20 percent in Maine, most of which were in Aroostook County, were of the crop-specialty type, relying for more than 40 percent of their receipts on one particular crop, such as maple sugar and syrup, white potatoes, or hay. One and one-half percent of the farms in Vermont, 5 percent of those in Maine, and 11 percent of those in New Hampshire were designated as poultry farms, which specialized in the production of chickens, ducks, geese, turkeys, and eggs.

Less than 2 percent of the farms in northern New England were of the animal-specialty type, depending mainly upon the sale of all classes of beef cattle, sheep, hogs, wool, and slaugh-

[59] Provided the value of the products of the farm did not exceed $750.

tered animals—a far cry from the days of the forties and fifties when so many relied on sheep. Approximately 3 percent of the places in New Hampshire and Maine, and one percent of those in Vermont looked to the forest for their principal source of income, while less than 2 percent of those in New Hampshire and in Maine, and fewer than one percent in Vermont were primarily fruit farms.[60] One and seven-tenths percent of the farms in New Hampshire and less than one percent of those in Vermont and Maine derived their largest revenue from boarding and lodging.[61]

This widespread adjustment in the agriculture of the hill country, with its accompanying abandonment of submarginal farms, was called "a triumph of selection, increased efficiency, and specialization," in a report issued by the Department of Commerce in 1930. In that year, farming provided a greater real income to the region than it had a half century before. Indeed, according to the investigation conducted by this department, the gross value of the products of all New England farms in 1929 was four times more than that reported for 1879, and, even when allowances are made for changes in price levels and for the increased outlay for feed and fertilizer, the net productivity of New England agriculture at the end of this period was from two to three times as great as fifty years previously.[62]

Nevertheless, the hill country farmer continued to find him-

[60] Raising both small fruits, such as strawberries, and tree fruits, such as apples.

[61] That is, where receipts from boarders, campers, lodgers, etc., represented 50 percent or more of the total value of all products and receipts of the farm.

The number of farms in the remaining classifications amounted in each case to less than one percent of the total in each state. There were, for instance, only 106 truck farms in Vermont, 138 in New Hampshire, and 385 in Maine.

These percentages were computed by the writer from material gathered from the Reports of the Fifteenth Census: *Agriculture,* bulletin for Vermont, second series of bulletins, p. 5; *ibid.*, for New Hampshire, p. 5; *ibid.*, for Maine, p. 5. For the exact figures concerning these different types of farms in each state, see Appendix 4, Table III.

[62] Artman, *Industrial Structure of New England,* p. 3.

self handicapped by many unsolved problems. He still encountered in the near-by markets the rivalry of other agricultural sections of the country. The keen competition of the West, which had formerly been felt in the production of grain, beef, and wool, had entered the field of dairying, poultry farming, and fruit raising. Although proximity to market would always be a factor in favor of the New England farmer, the question of how to gain the greatest efficiency in production and organization still confronted him. The small size of the majority of farms, the broken surface of the land, and the high percentage of soil which could not be used productively would always make it difficult to introduce large-scale mechanical operations, and the majority of farmers could not afford to invest in machinery which could be used only a few days a year on their hilly farms.[63]

In spite of these obstacles, contemporary New England observers were able to announce with satisfaction during the post-war depression in the early twenties that the hill country was better off than many other agricultural areas. A New Hampshire writer declared in 1924 that that state was almost untouched by the adverse conditions which had put the Western farmer on his back,[64] and the Vermont Commissioner of Agriculture pointed out that it was fortunate that the main reliance of the Green Mountain farmers was upon the dairy industry, because milk, cream, butter, and cheese had maintained a price considerably above the pre-war level, while the prices of

[63] *Ibid.*, p. 19. It might, however, be possible for a group of them to combine in purchasing the more expensive labor-saving machines. In 1930, Sinclair Lewis, writing from Barnard, in central Vermont, pointed out the desirability of more coöperation among hill-country husbandmen, and observed, "Is it more or less economical for several farmers to buy a piece of machinery in common when it is used only part of the time, or for each of them to buy it and let it stand idle most of the year?"—Lewis, "What's Wrong with Farmers?" p. 243. But it was easier to tell the independent New England farmer that he should coöperate than to have him do it.

[64] Paine, "New Hampshire, Not Yet Abandoned," p. 183.

cereal grains and meat products had sunk until in some cases they were lower than those of 1913.[65]

Conditions in the cities during this slump were such that many who had left the farms were glad to accept the invitations of their relatives to visit them in the country until opportunities for work were more plentiful.

> Now [wrote Dorothy Canfied Fisher in 1922], when times are hard and manufacturers are flat and the mills in the industrial states around us are shut down, and newspapers are talking about bankruptcies and bread-lines, the Vermont family, exactly as rich and exactly as poor as it ever was, remarks with a kindliness tinged with pride, "Well, we'd better ask Lem's folks up to stay for a spell, till times get better. I guess it's pretty hard sledding for them."[66]

It seemed apparent in 1930 that the more serious hard times which were just beginning would have a far deeper effect upon the hill country. While, up to that year, the near-by factories, with their higher scale of wages and their shorter hours, had attracted the farm youth and the farm laborers in such numbers that the northern New England husbandman had been forced to use the minimum of man power in the operation of his farm, by the end of the year the current depression had lessened the drain. With urban unemployment increasing, the hill-country farmer no longer had to compete with the factories to keep his workers.[67] There were, furthermore, many cases in which urban relatives of residents of northern New England, finding themselves out of a job, sought their kinsfolk in the hills, and were thus available for helping on the farm.

Moreover, the countryman who had gone to the city to work was beginning to look upon farm life in a different light. Even

[65] E. S. Brigham, "Report of the Commissioner of Agriculture," p. 5.

[66] Fisher, "Vermont, Our Rich Little Poor State," p. 644. Mrs. Fisher lives in Arlington, in southwestern Vermont.

[67] In 1929 the per capita income in the United States was $715; in Vermont, it was $699. In 1931 the per capita income in the United States had shrunk to $425, while in Vermont it amounted to $503, a figure which was exceeded by only twelve other states.—Report of the Brookmire Economic Service, June 7, 1932, as quoted in the *Burlington Free Press*, July 4, 1932, p. 3.

though it returned no high rewards financially, at least it offered comparative security. The unemployed urbanite might well wonder where the next meal for his family was coming from; the husbandman found no such problem facing him. No one could starve on a farm. The cows would give milk, the hens would lay eggs, the vegetable cellar would yield many bags of potatoes, and the pig could be dressed off for meat.[68]

Under the prod of economic necessity, many a hill-country family turned during these months to a more self-sufficient form of living. When the monthly creamery check became smaller as the price of milk dropped, and a large part of the gross income had to be paid out for imported grain, there was little left to spend outside, and the thriftier families began to rely increasingly upon home-grown products. By no means, however, had the conditions of a century before returned. The hill-country farmer had come to depend very largely upon a steady cash income, and when prices fell he bemoaned his lot as loudly as the Midwesterner. Nevertheless, as Bernard de Voto pointed out in *Harper's,* the fact that he had endured hard times for sixty years made him better able to face this latest strait.[69] He had had to find a way of withstanding six decades of comparative depression, and he had discovered it in frugal living, in developing specialized types of production, and in giving up the submarginal farms.

Notwithstanding Mr. De Voto's assertions,[70] however, rural New England was not a finished piece. The hill country was still in a state of readjustment, and the abandonment of farms was taking place more rapidly at the end of this period than at the beginning. In 1910, there were one percent fewer farms in Vermont than in 1900; in 1920, 11 percent less than in 1910; and in 1930, 27 percent less than in 1920. In New Hampshire,

[68] Wilson, "The Roads of Windsor," p. 307.

[69] De Voto, "New England, There She Stands."

[70] "The New England town has adjusted itself to the conditions of life. It is a finished piece."—*Ibid.*, p. 414. And again, "New England is a finished piece."—*Ibid.*, p. 415.

the rate was 7 per cent, 24 percent, and 27 percent respectively, and a one percent increase in the number of farms in Maine in the first ten years of the century was followed by a 19 percent decrease in each of the next two decades.[71]

Under the steady barrage of abandonment, the position taken by public authorities and contemporary writers toward the retreat of civilization from the rough highland acres underwent a great alteration. In the nineties, it will be recalled, the state Boards of Agriculture endeavored to secure the reoccupation of deserted farms, and many periodicals of the time maintained that nothing was fundamentally wrong with the hill country. Only an occasional critic doubted the advisability of continuing the cultivation of submarginal land. In the first years of the twentieth century, however, this latter group grew in numbers,[72] and by the last half of the period this attitude had become the consensus of opinion. In 1917, the President of the Massachusetts Agricultural College pointed out that a very large proportion of the land in the New England hill country country could never be farmed successfully under modern conditions.

> When the farm home was self-sustaining [he explained], these lands answered very well for a combination of vegetable growing, cattle and sheep husbandry, and lumbering; but they were never adapted to commercial agriculture and when commercial agriculture appeared, these hill lands had to be given up for profitable farms.[73]

In 1924 a Granite State writer declared it "sagacious to abandon a great many of these New Hampshire farms," maintaining that since it was impossible to wrest a decent livelihood from them, it would be better to let them grow to timber for the benefit of posterity.[74]

[71] Reports of the Fifteenth Census: *Agriculture,* bulletin for Vermont, second series of bulletins, p. 5; *ibid.*, for New Hampshire, p. 5; *ibid.*, for Maine, p. 5. These percentages were computed by the writer.

[72] See, for example, A. G. Robinson, "Notes of a Returned New Englander," p. 183.

[73] Butterfield, "Agriculture in New England," p. 1154.

[74] Paine, "New Hampshire, Not Yet Abandoned," p. 183.

Finally, the Vermont Commissioner of Agriculture himself noted in his report in 1925 that while the most progressive farmers on the better type of farm were receiving a fairly good return for their efforts and investment, the occupants of land unsuited to modern methods of management and labor-saving machinery were more poorly paid than ever before.

> The time seems to have arrived [he concluded] when the effort which has heretofore been expended in operating our rough, remote and worn-out farms can much more efficiently and profitably be applied to the better type of land. Our rocky hillsides may well return again to the forest growth for which they were by nature intended.[75]

By 1930, the New England hill country had thrown off the remaining vestiges of a deeply intrenched feeling that its future was mortgaged to its past. For decades the fall of rural New England had been chanted on every side, but there was no sound reason for lamentation. To be sure, in every section deserted homesteads stood as faded memories of other days when the farm was self-sufficient and no other regions competed in the markets or attracted the hill-country sons, and to the sentimentalist the return of these farms to the forest was a calamity. He automatically associated the dilapidated house with the breaking up of a home and the decline of a community. He found it difficult to regard an empty farmhouse with the same detachment as he would a worn-out automobile. Yet when a changed situation rendered so many of these locations profitable, the families who lived on them certainly bettered their lot by giving up the struggle to keep them going. By 1930, the farmer who abandoned his upland home, with its pitifully small meadows broken by outcroppings of rocks, was no longer considered by his fellow-townsmen as a weak-kneed soul who shirked his duty toward maintaining the agricultural life of the community. The deserted farm, instead of being thought wantonly abandoned, was regarded as the inevitable result of a readjustment to modern conditions.

[75] Jones, "Report of the Commissioner of Agriculture," p. 6.

# APPENDICES

I

# TOWNSHIP CHANGES IN NEW HAMPSHIRE AND VERMONT, 1790-1930

## Changes in New Hampshire, 1790-1830[1]

1791 Goshen formed from parts of Newport, Sunapee, Newbury, Lempster, and Unity.

Greenfield made up of Lyndeborough Gore and parts of Society Land, Petersborough, and Lyndeborough.

Sharon formed from part of Peterborough. By act of the Legislature, July 5, 1867, the entire town was annexed to Peterborough, the annexation to take effect when approved by a majority of the voters in each town. The act has never yet been ratified.

1792 Cockermouth changed to Groton, except for the part which, combined with a portion of Plymouth, formed the town of Hebron, in the same year.

1794 Brookfield set off from Middleton.

Milford formed from the "Mile Slip" and parts of Amherst and Hollis.

1795 Danbury set off from Alexandria.

Protectworth changed to Springfield.

1796 Colburne changed to Colebrook.

Dartmouth changed to Jefferson.

1797 Centre Harbor set off from New Hampton.

Farmington formed from part of Rochester.

Raby changed to Brookline.

Windsor made up of Campbell's Gore and Wheeler's Gore.

1802 Milton set off from Rochester; a portion of Wakefield annexed in 1820.

Trecothick changed to Ellsworth.

1803 Mont Vernon formed from part of Amherst.

1807 Wilmot made up of parts of New London, Kearsarge Gore, and Hill.

[1] Information as to changes in township names in New Hampshire is to be found in the Library of the New Hampshire Historical Society, Concord, New Hampshire.

1810 Derryfield changed to Manchester.

1811 Cockburne changed to Columbia.

1812 Gilford taken from Gilmanton. Another section of Gilmanton was annexed to Gilford in 1851 and a portion of Laconia in 1876.

Roxbury formed from parts of Keene, Nelson, and Marlborough.

1814 Packersfield changed to Nelson.

1815 Troy made up from parts of Marlborough, Fitzwilliam, Swanzey, and Richmond.

1819 Bristol formed from portions of Bridgewater and Hill.

1820 Strafford set off from Barrington.

1822 Hooksett organized from sections of Chester, Dunbarton, and Goffstown.

1824 Concord (Grafton County) changed to Lisbon.

Durand changed to Randolph.

Paulsbourg changed to Milan.

1827 Derry set off from Londonderry.

1828 Franklin formed from parts of Andover, Salisbury, Northfield, and Sanbornton.

1829 Adams changed to Jackson.

1830 Nottingham West changed to Hudson.

## Changes in Vermont, 1790-1830[2]

1790 The 1790 version of Pawlet is spelled Pacolet.

Minden changed to Craftsbury. The reason given in the petition to the Legislature was because "from a similarity of sound between the name Minden and Lyndon, people often mistake one for the other." *The New Hampshire Grants*, New Hampshire State Papers, XXVI (1895), p. 649.

1792 Smithfield annexed to Bakersfield and Fairfield.

Thomlinson changed to Grafton.

Mt. Holly formed from Jacksons Gore and parts of Ludlow and Wallingford.

1793 Wildersberg changed to Barre, because "the name of the township has ever sounded uncouthly to the inhabitants and settlers and is also disagreeable on account of its length." Petition of its citizens to Vermont Legislature, *The New Hampshire Grants*, p. 629.

[2] Information pertaining to these changes is to be found in the library of the Vermont Historical Society, Montpelier, Vermont.

1794 Brookline organized from sections of Putney and Athens.
Richmond formed from parts of Jericho, Bolton, Huntington, and Williston.
1795 Windham made up from "Mack's Leg" and part of Londonderry.
1797 Littleton changed to Waterford.
Plainfield formed out of St. Andrews Gore.
Saltash becomes Plymouth.
West Fairlee set off from Fairlee. In 1810 and 1820, however, only the combined total of the two towns is given in the census reports.
1798 Middleboro formed from the northern part of South Hero. In 1810 its name was changed to Grand Isle.
1799 Weston made up from Bentons Gore and part of Andover.
1800 Killington changed to Sherburne.
1803 Harwich changed to Mt. Tabor.
1804 Brumley changed to Peru.
1807 Kirby formed out of "Burke Tongue" and Hopkinsville.
1810 Deweysburgh divided between Danville and Peacham.
Wardsborough South District changed to Dover.
1812 Billymead changed to Sutton.
1813 St. George organized.
1815 Lutterloch changed to Albany.
1816 Duncansborough changed to Newport.
1817 Huntsburgh changed to Franklin.
1823 Baltimore set off from Cavendish, although reported separately in the census from 1790 on.
1825 Navy changed to Charleston.
1827 Parkerstown changed to Mendon. Up to 1804 it had been called Medway. See Zadock Thompson, *History of Vermont* (Burlington, Vt., 1842), Part III, p. 113.
1830 Minehead changed to Bloomfield.
Vineyard changed to Isle La Motte.

## Changes in New Hampshire, 1830-1870

1831 Freedom set off from Effingham.
1832 Piercy changed to Stark.
1833 Burton changed to Albany.
1836 Dunstable changed to Nashua.
1837 Fishersfield changed to Newbury.

New Chester changed to Hill.
1840 Peeling changed to Woodstock.
1842 Bennington formed from parts of Greenfield, Francestown, Deering, and Hancock.
1845 Auburn set off from Chester.
1849 Rollinsford organized from part of Somersworth.
South Newmarket set off from Newmarket, its name later being changed to Newfields.
1850 Wendell changed to Sunapee.
1852 Madison formed from part of Eaton.
1853 Dartmouth College Grant incorporated as Clarksville.
1854 Monroe set off from Lyman.
Poplin changed to Fremont.
1855 Laconia formed from part of Meredith.
1859 Belmont set off from Gilmanton.
1860 Webster formed from part of Boscawen.
1864 Coventry changed to Benton.
1867 Ashland organized from part of Holderness.
1869 Tilton formed from section of Sanbornton.
1870 Harrisville made up from parts of Dublin and Nelson.

## Changes in Vermont, 1830-1870

1831 Kellyvale changed to Lowell.
1834 Kingston changed to Granville.
1838 Woodbury changed to Monroe. In 1843, however, its name was changed back to Woodbury.
1841 Acton annexed to Townshend.
1848 East Montpelier formed from part of Montpelier.
Mansfield annexed to Stowe; a section of it had been joined in 1839 to Underhill.
West Windsor set off from Windsor.
1853 Wenlock annexed to Brighton and Ferdinand.
1855 Sterling annexed to Johnson, Morrisville, and Stowe.
1856 Bradleyvale annexed to Concord and Victory.
1864 South Burlington set off from Burlington.
1867 Stannard organized from Goshen Gore.

## Changes in New Hampshire, 1870-1900

1872 Greenville set off from Mason.
1876 Easton formed from part of Landaff.

## Changes in Vermont, 1870-1900

1880 Salem annexed to Derby.
1886 Proctor formed from parts of Pittsford and Rutland.
West Rutland set off from Rutland.

## Change in Vermont, 1900-1930[3]

1922 Winooski was set off from the town of Colchester, as a city.

[3] No changes in New Hampshire in this period.

# POPULATION STATISTICS

TABLE I

POPULATION OF NORTHERN NEW ENGLAND STATES, 1790–1930

| Date | Vermont | New Hampshire | Maine |
|---|---|---|---|
| 1790 | 85,416 | 141,899 | 96,540 |
| 1800 | 154,465 | 183,717 | 151,719 |
| 1810 | 217,713 | 214,360 | 228,705 |
| 1820 | 235,754 | 244,166 | 298,335 |
| 1830 | 280,652 | 269,328 | 399,455 |
| 1840 | 291,948 | 284,574 | 501,793 |
| 1850 | 314,120 | 317,976 | 583,169 |
| 1860 | 315,098 | 326,073 | 628,279 |
| 1870 | 330,551 | 318,300 | 626,915 |
| 1880 | 332,286 | 346,991 | 648,936 |
| 1890 | 332,422 | 376,530 | 661,086 |
| 1900 | 343,641 | 411,588 | 694,466 |
| 1910 | 355,956 | 430,572 | 742,371 |
| 1920 | 352,428 | 443,083 | 768,014 |
| 1930 | 359,611 | 465,293 | 797,423 |

TABLE II

DATA CONCERNING THE POPULATION OF VERMONT IN 1850

| | Natives of Vermont Living in Other States | Residents of Vermont Born in Other States | Loss | Gain |
|---|---|---|---|---|
| California[1] | 1,194 | 0 | 1,194 | 0 |
| Connecticut | 1,508 | 4,551 | 0 | 3,043 |
| Illinois | 11,381 | 34 | 11,347 | 0 |
| Indiana | 3,183 | 15 | 3,168 | 0 |
| Iowa | 1,645 | 5 | 1,640 | 0 |
| Massachusetts | 17,646 | 15,059 | 2,587 | 0 |
| Michigan | 11,113 | 86 | 11,027 | 0 |
| New Hampshire | 11,266 | 19,609 | 0 | 8,343 |
| New York | 52,599 | 7,218 | 45,381 | 0 |
| Ohio | 14,320 | 165 | 14,155 | 0 |
| Pennsylvania | 4,532 | 158 | 4,374 | 0 |
| Wisconsin | 10,157 | 32 | 10,125 | 0 |
| Other Eastern States[2] | 2,233 | 1,831 | 402 | 0 |
| The South[3] | 1,797 | 101 | 1,696 | 0 |
| Other Western States and Territories[4] | 1,081 | 11 | 1,070 | 0 |
| Totals | 145,655 | 48,875 | 108,166 | 11,386 |

[1] The discovery of gold in California attracted many of the adventurous whose careers had not been mapped out for them. See Stilwell, Migration from Vermont, 1776-1860, page 214.

[2] Delaware, the District of Columbia, Maine, Maryland, New Jersey, and Rhode Island.

[3] Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, South Carolina, Tennessee, Texas, and Virginia.

[4] Minnesota, Missouri, New Mexico, Oregon, and Utah.

TABLE III

PLACE OF BIRTH OF FOREIGN-BORN PERSONS RESIDENT IN VERMONT, 1850–1900[5]

| Country of Birth | 1850 | 1860 | 1870 | 1880 | 1890 | 1900 |
|---|---|---|---|---|---|---|
| Foreign countries | 32,830 | 32,743 | 47,155 | 40,959 | 44,088 | 44,747 |
| Austria | 0 | 1 | 2 | 5 | 59 | 237 |
| Canada (English and French) | 14,470 | 15,776 | 28,544 | 24,620 | 25,004 | 10,616[6] |
| Canada (French) | ... | ... | ... | ... | ... | 14,924 |
| England and Wales | 1,603 | 2,016 | 2,511 | 2,767 | 4,477 | 3,503 |
| France | 40 | 71 | 93 | 138 | 175 | 171 |
| Germany | 224 | 218 | 370 | 396 | 877 | 882 |
| Ireland | 15,377 | 13,480 | 14,080 | 11,657 | 9,810 | 7,453 |
| Italy | 7 | 13 | 17 | 30 | 445 | 2,154 |
| Russia | 1 | 7 | 1 | 8 | 153 | 377 |
| Scandinavia | 0 | 0 | 0 | 113 | 966 | 1,299 |
| Scotland | 1,045 | 1,078 | 1,240 | 1,006 | 1,730 | 2,049 |
| All others | 55 | 79 | 159 | 219 | 392 | 1,082 |
| United States | 280,966 | 282,355 | 283,396 | 291,327 | 288,334 | 298,894 |
| Unknown | ... | 323 | ... | ... | ... | ... |
| Total population | 314,119 | 315,098 | 330,551 | 332,386 | 332,422 | 343,641 |

[5] See Rossiter, *Increase in Population in the United States, 1910-1920*, p. 432.

[6] English only.

TABLE IV

FOREIGN-BORN WHITE FARM OPERATORS RESIDING IN NEW ENGLAND IN 1920[7]

By Country of Birth.

| Country | N.E. | Maine | N. H. | Vt. | Mass. | R.I. | Conn. |
|---|---|---|---|---|---|---|---|
| Austria | 1,157 | 19 | 51 | 35 | 352 | 13 | 687 |
| Canada | 9,884 | 3,088 | 1,514 | 2,663 | 2,076 | 162 | 381 |
| Denmark | 383 | 104 | 17 | 30 | 92 | 7 | 133 |
| England | 1,786 | 188 | 210 | 182 | 740 | 105 | 361 |
| Finland | 957 | 220 | 123 | 81 | 434 | 11 | 88 |
| France | 313 | 14 | 13 | 24 | 136 | 9 | 177 |
| Germany | 1,840 | 74 | 74 | 98 | 380 | 103 | 1,111 |
| Greece | 64 | 3 | 10 | 1 | 40 | | 10 |
| Hungary | 312 | 2 | 3 | 14 | 84 | 1 | 208 |
| Ireland | 1,924 | 96 | 124 | 199 | 796 | 59 | 650 |
| Italy | 1,670 | 40 | 21 | 62 | 687 | 131 | 729 |
| Norway | 178 | 28 | 23 | 15 | 67 | 5 | 30 |
| Poland | 1,502 | 20 | 72 | 46 | 557 | 12 | 795 |
| Portugal | 458 | 2 | 4 | 21 | 368 | 52 | 11 |
| Rumania | 14 | | 2 | | 1 | 1 | 10 |
| Russia | 1,812 | 57 | 80 | 28 | 628 | 22 | 997 |
| Scotland | 594 | 68 | 84 | 96 | 221 | 27 | 98 |
| Sweden | 1,784 | 284 | 111 | 78 | 577 | 62 | 672 |
| Switzerland | 206 | 4 | 7 | 16 | 40 | 9 | 130 |
| Other European Countries | 575 | 20 | 16 | 26 | 185 | 9 | 319 |
| Other Countries | 703 | 41 | 57 | 18 | 394 | 137 | 56 |
| Total | 26,265 | 4,384 | 2,619 | 3,767 | 8,930 | 940 | 7,625 |

[7] See Truesdell, *Farm Population of the United States*, pp. 108-9.

# 3

# PRODUCTION STATISTICS

## TABLE I

## THE YIELD OF THE FIELD

### A. GRAIN PRODUCTION, 1849–1929[1]

BUSHELS OF WHEAT

| Year | Maine | New Hampshire | Vermont |
|---|---|---|---|
| 1849 | 296,259 | 185,658 | 535,955 |
| 1859 | 233,876 | 238,965 | 437,037 |
| 1869 | 279,793 | 193,621 | 454,703 |
| 1879 | 665,714 | 169,316 | 337,257 |
| 1889 | 79,826 | 35,192 | 164,720 |
| 1899 | 116,720 | 4,035 | 34,650 |
| 1909 | 85,119 | 1,311 | 14,087 |
| 1919 | 261,185 | 21,968 | 176,003 |
| 1929 | 39,474 | 376 | 13,248 |

BUSHELS OF CORN

| Year | Maine | New Hampshire | Vermont |
|---|---|---|---|
| 1849 | 1,750,056 | 1,573,670 | 2,032,396 |
| 1859 | 1,546,071 | 1,414,628 | 1,525,411 |
| 1869 | 1,089,888 | 1,277,768 | 1,699,882 |
| 1879 | 960,633 | 1,350,248 | 2,014,271 |
| 1889 | 380,662 | 988,806 | 1,700,688 |
| 1899 | 645,040 | 1,080,720 | 1,322,450 |
| 1909 | 648,882 | 916,263 | 1,715,133 |
| 1919 | 288,281 | 482,738 | 937,375 |
| 1929 | 63,393 | 111,977 | 259,170 |

[1] Reports of the Twelfth Census, Vol. VI: *Agriculture*, Part 2, pp. 72-73; Reports of the Fourteenth Census, Vol. V: *Agriculture*, pp. 739-52; Reports of the Fifteenth Census: *Agriculture*, bulletin for Maine, first series of bulletins, p. 5; *ibid.*, for New Hampshire, p. 5; *ibid.*, for Vermont, p. 5. For 1909 figures for hay production, see Reports of the Thirteenth Census, Vol. VI: *Agriculture*, p. 708; *ibid.*, Vol. VII: *Agriculture*, pp. 108, 760.

TABLE I *(Continued)*

THE YIELD OF THE FIELD

BUSHELS OF OATS

| Year | Maine | New Hampshire | Vermont |
|---|---|---|---|
| 1849 | 2,181,037 | 973,381 | 2,307,734 |
| 1859 | 2,988,939 | 1,329,233 | 3,630,267 |
| 1869 | 2,351,354 | 1,146,451 | 3,602,430 |
| 1879 | 2,265,575 | 1,017,620 | 3,742,282 |
| 1889 | 3,668,909 | 892,243 | 3,316,141 |
| 1899 | 3,799,435 | 497,110 | 2,742,140 |
| 1909 | 4,232,309 | 386,419 | 2,141,357 |
| 1919 | 3,600,617 | 485,367 | 2,396,349 |
| 1929 | 3,942,774 | 126,083 | 1,010,660 |

BUSHELS OF BARLEY

| Year | Maine | New Hampshire | Vermont |
|---|---|---|---|
| 1849 | 151,731 | 70,265 | 42,150 |
| 1859 | 803,108 | 121,103 | 79,211 |
| 1869 | 658,816 | 105,822 | 117,333 |
| 1879 | 242,185 | 77,877 | 267,625 |
| 1889 | 286,262 | 112,378 | 420,761 |
| 1899 | 252,850 | 46,680 | 380,940 |
| 1909 | 106,674 | 20,764 | 285,008 |
| 1919 | 104,912 | 22,036 | 196,815 |
| 1929 | 73,336 | 4,345 | 83,149 |

BUSHELS OF BUCKWHEAT

| Year | Maine | New Hampshire | Vermont |
|---|---|---|---|
| 1849 | 104,523 | 65,265 | 209,819 |
| 1859 | 239,519 | 89,996 | 225,415 |
| 1869 | 466,635 | 100,034 | 415,096 |
| 1879 | 382,701 | 94,070 | 356,618 |
| 1889 | 466,411 | 75,048 | 271,216 |
| 1899 | 468,320 | 43,360 | 196,010 |
| 1909 | 316,782 | 26,312 | 174,394 |
| 1919 | 315,327 | 10,940 | 81,346 |
| 1929 | 229,714 | 2,175 | 24,178 |

TABLE I *(Continued)*

THE YIELD OF THE FIELD

TONS OF HAY

| Year | Maine | New Hampshire | Vermont |
|---|---|---|---|
| 1849 | 753,889 | 598,854 | 866,153 |
| 1859 | 975,803 | 642,741 | 940,178 |
| 1869 | 1,053,415 | 612,648 | 1,220,669 |
| 1879 | 1,107,788 | 588,170 | 1,052,182 |
| 1889 | 1,192,228 | 659,368 | 1,205,953 |
| 1899 | 1,133,932 | 653,265 | 1,329,972 |
| 1909 | 1,113,095 | 582,454 | 1,502,730 |
| 1919 | 1,206,323 | 480,615 | 1,211,240 |
| 1929 | 884,740 | 362,899 | 1,141,206 |

B. PRODUCTION OF SILAGE CORN AND WHITE POTATOES[2]

TONS OF CORN CUT FOR SILAGE

| Year | Maine | New Hampshire | Vermont |
|---|---|---|---|
| 1919 | 87,634 | 104,954 | 475,161 |
| 1924 | 80,126 | 95,460 | 581,560 |
| 1929 | 66,957 | 81,466 | 425,624 |

PRODUCTION OF WHITE POTATOES

| Year | Maine | New Hampshire | Vermont |
|---|---|---|---|
| 1899 | 9,813,748 | 2,420,668 | 3,547,829 |
| 1909 | 28,556,837 | 2,360,241 | 4,145,630 |
| 1919 | 25,531,470 | 1,341,978 | 2,277,387 |
| 1924 | 40,121,881 | 1,365,812 | 2,523,462 |
| 1929 | 47,441,580 | 1,030,327 | 1,727,684 |

[2] Reports of the Fifteenth Census: *Agriculture,* bulletin for Vermont, first series of bulletins, p. 5; *ibid.,* for New Hampshire, p. 5; *ibid.,* for Maine, p. 5.

TABLE II
THE YIELD OF THE FOREST

A. MAPLE PRODUCTION, 1850–1930[3]

VERMONT

| | Pounds of Sugar | Gallons of Syrup |
|---|---|---|
| 1850 | 6,349,557 | not given |
| 1860 | 9,897,781 | 16,253 |
| 1870 | 8,894,302 | 12,023 |
| 1880 | 11,261,077 | 128,091 |
| 1890 | 14,123,921 | 218,252 |
| 1900 | 4,779,870 | 160,918 |
| 1910 | 7,726,817 | 409,953 |
| 1920 | 6,251,734 | 631,924 |
| 1930 | 1,195,000 | 1,368,000 |

NEW HAMPSHIRE

| | Pounds of Sugar | Gallons of Syrup |
|---|---|---|
| 1850 | 1,298,863 | not given |
| 1860 | 2,255,012 | 43,833 |
| 1870 | 1,800,704 | 16,884 |
| 1880 | 2,731,945 | 79,112 |
| 1890 | 2,124,515 | 81,997 |
| 1900 | 441,870 | 41,588 |
| 1910 | 558,811 | 111,500 |
| 1920 | 329,723 | 112,824 |
| 1930 | 154,000 | 93,000 |

MAINE

| | Pounds of Sugar | Gallons of Syrup |
|---|---|---|
| 1850 | 93,542 | not given |
| 1860 | 306,742 | 32,679 |
| 1870 | 160,805 | 28,470 |
| 1880 | 153,334 | 82,006 |
| 1890 | 84,537 | 71,818 |
| 1900 | 5,500 | 16,024 |
| 1910 | 15,388 | 43,971 |
| 1920 | 24,934 | 42,144 |
| 1930 | 40,000 | 38,000 |

[3] The material for this table was taken from the *Abstract of the Eleventh Census: Agriculture*, pp. 126 *et. seq.*; Reports of the Fourteenth Census, Vol. V: *Agriculture*, p. 848. The 1930 figures were procured directly from the State Departments of Agriculture in the three northern New England states.

TABLE II *(Continued)*

THE YIELD OF THE FOREST

A trend very noticeable in the above tables, particularly in the figures for Vermont, and to a slighter degree for New Hampshire, is a decline in the amount of sugar produced since 1900 and an accompanying increase in the quantity of syrup. There has been a growing tendency to sell the maple production of the farm in the form of syrup, rather than to boil the sap down into sugar. The poorer quality went to the "mixer" and to tobacco manufacturers, while a great deal of the finer grades was sold directly to private customers, often to northern New Englanders who had moved away from the hill country.[4] Although the above table does not give the impression that the total yield of sugar was larger in 1930 than in 1900, such, nevertheless, was the fact. Since one gallon of syrup, which weighs 11 pounds, makes 8 pounds of sugar, the 160,918 gallons of syrup produced in Vermont in 1900 would have made 1,287,344 pounds of sugar. This, added to the 4,774,870 pounds reported for that year, gives a total of 6,067,214 pounds which Vermont would have returned for that year, if the whole yield of sap had been used for the making of maple sugar. In 1930, the 1,368,000 gallons of syrup could have been turned into 10,944,000 pounds of sugar, and this, added to the 1,195,000 reported for that year, would give a total potential production of 12,139,000 pounds, practically twice that for 1900. Following these same computations, New Hampshire could have made 774,574 pounds of sugar in 1900 and 898,000 in 1930; similarly, Maine's figures would have been 133,692 pounds in 1900, and 344,000 in 1930.

B. VALUE OF ALL FOREST PRODUCTS, 1899–1929[5]

| Year | Maine | New Hampshire | Vermont |
|---|---|---|---|
| 1899 | $ 2,652,252 | $2,296,265 | $2,108,518 |
| 1909 | 5,573,763 | 3,610,178 | 3,638,537 |
| 1919 | 11,728,114 | 5,532,115 | 6,377,580 |
| 1929 | 7,913,650 | 3,063,363 | 4,905,080 |

[4] A few granges attempted the coöperative retailing of the maple goods produced by their members. In the spring of 1926, for instance, the Winooski Valley Grange in Vermont tried to bring its producing members into touch with the consuming members of other granges, by selling them maple sugar products. All maple-sugar makers who belonged to this grange were invited to unite in the plan and a considerable amount of advertising was sent out to members in other parts of the country. The Lecturer of the local organization acted as intermediary and handed orders and remittances to members. The latter then dealt directly with the purchasers.—Horton, *History of the Grange in Vermont*, p. 21.

[5] See Reports of the Fourteenth Census, Vol. V: *Agriculture*, p. 882; Reports of the Fifteenth Census: *Agriculture*, Vol. II, Part 1, p. 109.

## TABLE III
## DAIRY STATISTICS

### A. BUTTER PRODUCTION, 1849–1929[6]

POUNDS OF BUTTER MADE ON FARMS

| Year | Maine | New Hampshire | Vermont |
|---|---|---|---|
| 1849 | 9,243,811 | 6,977,056 | 12,137,980 |
| 1859 | 11,687,781 | 6,956,764 | 15,900,359 |
| 1869 | 11,636,482 | 5,965,080 | 17,844,396 |
| 1879 | 14,103,966 | 7,247,272 | 25,240,826 |
| 1889 | 15,593,315 | 7,942,840 | 23,314,063 |
| 1899 | 16,174,173 | 6,385,611 | 18,834,706 |
| 1909 | 13,299,229 | 5,065,188 | 15,165,692 |
| 1919 | 10,855,560 | 3,240,368 | 3,877,039 |
| 1929 | 8,187,893 | 1,768,374 | 2,218,341 |

POUNDS OF BUTTER MADE IN FACTORIES

| Year | Maine | New Hampshire | Vermont |
|---|---|---|---|
| 1879 | 6,000 | 99,068 | 5,000 |
| 1889 | 1,406,041 | 1,919,590 | 5,085,377 |
| 1899 | 4,461,399 | 5,034,270 | 22,453,381 |
| 1909 | 2,105,622 | 1,740,235 | 20,227,495 |
| 1919 | 1,271,819 | 517,498 | 12,883,193 |

### B. CHEESE PRODUCTION, 1849–1919[7]

POUNDS OF CHEESE MADE ON FARMS

| Year | Maine | New Hampshire | Vermont |
|---|---|---|---|
| 1849 | 2,434,454 | 3,196,563 | 8,720,834 |
| 1859 | 1,799,862 | 2,232,092 | 8,215,030 |
| 1869 | 1,152,590 | 849,118 | 4,830,700 |
| 1879 | 1,167,730 | 807,076 | 1,545,789 |
| 1889 | 696,052 | 341,235 | 609,586 |
| 1899 | 425,102 | 104,339 | 406,659 |
| 1909 | 118,216 | 180,996 | 245,884 |
| 1919 | 55,161 | 32,469 | 75,502 |

[6] See Reports of the Fourteenth Census, Vol. V: *Agriculture*, pp. 660-61; Reports of the Fifteenth Census: *Agriculture*, Vol. II, Part 1, pp. 71-72.

[7] See Reports of the Fourteenth Census, Vol. V: *Agriculture*, pp. 663-4.

TABLE III *(Continued)*

DAIRY STATISTICS

POUNDS OF CHEESE MADE IN FACTORIES

| Year | Maine | New Hampshire | Vermont |
|---|---|---|---|
| 1879 | 777,365 | no figures | 4,475,341 |
| 1889 | 755,761 | 103,386 | 5,582,327 |
| 1899 | 553,946 | 116,741 | 4,713,105 |
| 1909 | 55,591 | 184,497 | 2,762,656 |
| 1919 | [8] | [8] | 4,907,759 |
| 1929 | | no figures available | |

C. PRODUCTION OF MILK, 1899–1929[9]

(In Gallons.)

| Year | Maine | New Hampshire | Vermont |
|---|---|---|---|
| 1899 | 99,586,188 | 60,724,590 | 142,042,223 |
| 1909 | 56,026,334 | 44,461,042 | 122,918,629 |
| 1919 | 77,676,881 | 42,556,285 | 122,095,734 |
| 1924 | 70,948,840 | 38,149,067 | 127,956,952 |
| 1929 | 71,100,802 | 40,679,579 | 139,075,554 |

D. FEEDS AVAILABLE IN NEW ENGLAND IN 1924[10]

(In net tons.)

| Feed | Produced in New England | Shipped into New England | Total |
|---|---|---|---|
| Corn | 45,659 | 438,863 | 484,522 |
| Oats | 89,810 | 419,658 | 509,468 |
| Wheat | 3,204 | 49,500 | 52,704 |
| Other grains | 12,416 | 64,209 | 76,625 |
| Total grain | 151,089 | 972,230 | 1,123,319 |
| Cottonseed | None | 31,747 | 31,747 |
| Linseed | None | 18,000 | 18,000 |
| Other mill products | None | 964,067 | 964,067 |

[8] No census returns given, "as to do so," explains the Census of 1920, "would disclose individual operations."

[9] See Reports of the Twelfth Census, Vol. V: *Agriculture*, Part 1, p. 5[illegible]; Reports of the Thirteenth Census, Vol. VI: *Agriculture*, p. 714; *Census of Agriculture*, 1925, pp. 103, 121; Reports of the Fifteenth Census: *Agriculture*, bulletin for Maine, second series of bulletins, p. 11; *ibid.*, for New Hampshire, p. [illegible]; *ibid.*, for Vermont, p. 11.

[10] See Artman, *Industrial Structure of New England*, p. 27.

## Regulations for the Production of Milk and Cream

Established by the Vermont Department of Agriculture, 1927[11]

1. All cattle must be healthy.
2. All persons connected with milking, cooling, separating or washing utensils must be healthy.
3. All utensils, cans, pails, strainers, and separators must be clean. They must be washed thoroughly and scalded once daily.
4. Milking machines must be kept clean. Machine parts must not be kept in water where live stock drink.
5. All utensils must be stored in a clean, sanitary place.
6. A milk house or clean room to strain, separate, and cool milk or cream must be provided.
7. Milk or cream must be cooled below 60° F. Ice must be put up unless facilities are provided to cool below 60° F. Cattle drinking trough must not be used for cooling purposes unless a separate fresh water compartment is provided that is partitioned off and covered to protect the product from contamination.
8. Water supply must be abundant, clean and free from contamination.
9. Stables must be clean, light and well ventilated.
10. Horses or pigs must not be kept in cow stable.
11. Cattle yard and surroundings must be reasonably clean and well drained.
12. Manure must be removed from near the buildings unless properly stored in basement or pit during fly time. Stables must have tight floors and be especially well ventilated if manure accumulates in basement.

[11] See Vermont Board of Agriculture report for 1926-28, pp. 14-15.

# 4

# MISCELLANEOUS FARM STATISTICS

TABLE I

CLASSIFICATION OF FARMS BY THE TYPES OF ROAD ON WHICH THEY ARE LOCATED, 1930[1]

| Kind of Road | Maine | New Hampshire | Vermont |
|---|---|---|---|
| Asphalt | 230 | 458 | 19 |
| Brick | 4 | | |
| Concrete | 358 | 283 | 675 |
| Dirt, improved | 4,971 | 1,793 | 4,927 |
| Dirt, unimproved | 15,904 | 6,607 | 8,739 |
| Gravel | 12,503 | 2,181 | 9,354 |
| Macadam | 2,901 | 2,912 | 559 |
| Sand-clay | 186 | 18 | 80 |
| All others, including those not reported | 1,949 | 654 | 545 |
| Total | 39,006 | 14,906 | 24,898 |

[1] See Reports of the Fifteenth Census: *Agriculture*, Vol. II, Part 1, p. 57.

TABLE II

CHIEF SOURCES OF INCOME ON FARMS OF NORTHERN NEW ENGLAND, 1900[2]

| | TOTAL NUMBER OF FARMS | HAY AND GRAIN | | VEGETABLES | | FRUITS | | LIVE STOCK | | DAIRY PRODUCE | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Number | Per-cent | Number | Per-cent | Number | Per-cent | Number | Per-cent | Number | Per-cent |
| Maine | 59,299 | 7,453 | 12.6 | 5,263 | 8.9 | 551 | 0.9 | 15,048 | 25.4 | 17,740 | 29.9 |
| N.H. | 29,324 | 3,547 | 12.1 | 1,505 | 5.1 | 432 | 1.5 | 7,634 | 26.0 | 9,788 | 33.4 |
| Vermont | 33,104 | 2,519 | 7.6 | 679 | 2.1 | 204 | 0.6 | 7,323 | 22.1 | 16,700 | 50.5 |

[2] See *Abstract of the Twelfth Census*, p. 228.

TABLE III

TYPES OF FARMS IN NORTHERN NEW ENGLAND, 1930[3]

| | MAINE | | NEW HAMPSHIRE | | VERMONT | |
|---|---|---|---|---|---|---|
| | Number | Percent | Number | Per cent | Number | Percent |
| Animal specialty | 688 | 1.9 | 275 | 1.8 | 460 | 1.4 |
| Boarding and lodging | 263 | [4] | 248 | 1.7 | 157 | [4] |
| Cash-grain | 15 | [4] | | | | |
| Crop-specialty | 7,965 | 20.4 | 476 | 3.2 | 851 | 3.4 |
| Dairy | 6,596 | 16.9 | 4,332 | 29.1 | 14,425 | 57.9 |
| Forest-product | 1,167 | 2.9 | 469 | 3.1 | 310 | 1.1 |
| Fruit | 686 | 1.9 | 275 | 1.8 | 132 | [4] |
| General | 7,576 | 19.4 | 2,223 | 14.9 | 2,630 | 10.5 |
| Horsefarm, feed lot, or livestock dealer | 199 | [4] | 103 | [4] | 100 | [4] |
| Institution or country estate | 65 | [4] | 83 | [4] | 42 | [4] |
| Part-time | 6,337 | 16.2 | 2,434 | 16.3 | 3,388 | 13.6 |
| Poultry | 2,073 | 5.3 | 1,622 | 10.9 | 460 | 1.4 |
| Self-sufficing | 4,049 | 10.4 | 1,818 | 12.2 | 1,460 | 5.8 |
| Truck | 385 | [4] | 138 | [4] | 106 | [4] |
| Unclassified | 942 | 2.4 | 410 | 2.7 | 387 | 1.5 |
| Total | 39,006 | | 14,906 | | 24,898 | |

[3] Reports of the Fifteenth Census: *Agriculture,* bulletin for Maine, second series of bulletins, p. 5; *ibid.*, for New Hampshire, p. 5; *ibid.*, for Vermont, p. 5.

[4] Less than one percent.

TABLE IV

TOTAL VALUE OF FARM PRODUCTS, 1909–29[5]

| | VALUE OF PRODUCTS SOLD FROM FARMS, OR CUT AND HELD FOR SALE | | VALUE OF PRODUCTS USED ON FARMS, OR CUT AND HELD FOR USE | |
|---|---|---|---|---|
| | 1909 | 1919 | 1909 | 1919 |
| Maine | $3,527,275 | $7,667,551 | $2,046,488 | $4,060,563 |
| New Hampshire | 2,677,746 | 4,282,071 | 932,432 | 1,250,044 |
| Vermont | 2,065,003 | 3,682,129 | 1,573,534 | 2,695,451 |

[5] See Reports of the Fourteenth Census, Vol. V: *Agriculture,* p. 882.

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Much of the material cited yields valuable data on social and economic conditions. Especially helpful are the files of local newspapers, rich in local color; and a number of pertinent monographs on the situation in the New England hill country at different periods. The average town histories are sadly deficient in material on social and industrial life; most of them contain a careful account of the settlement of the region and then proceed to record with reverence all outstanding occurrences thereafter, particularly stressing centennial celebrations and spectacular fires. Very often the larger portion of each work is devoted to lengthy genealogies. Nevertheless, from a few more worthwhile volumes, considerable data may be gleaned.


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